

# **The Role that Courage plays in an Experiential Learning Process**

**A Research Report**

**Presented to**

**The Graduate School of Business**

**University of Cape Town**

**In fulfilment of the requirements for the degree of**

**Doctor of Philosophy**

**By**

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**Date: 16 November 2014**

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## ABSTRACT

# The Role that Courage plays in an Experiential Learning Process

- *by Elanca Shelley*

Experiential learning is a well-known learning theory that underpins management development. This study presents a causal theory that is based on experiential learning and explains why some students experience a transformational learning experience that increases their management effectiveness and others do not.

This theory was developed within a critical realist ontology and it used a constructivist grounded theory methodology to emerge the key variables that formed the theory. Prior to the grounded theory study, a pilot study was conducted to develop the conceptual framework for the research. This pilot study included approximately 240 research participants from within the classrooms in my work context. The conceptual framework facilitated the development of the key research question:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

The grounded theory process consists of three evolutionary stages that facilitated the emergence and development of the final key variables. The key variables were developed from three data sources that aimed at increasing the credibility of the theory. The first data source for the grounded theory process was documentary sources gathered from 232 research participants who completed the management development programme within their own organisation. This data mainly facilitated the first evolutionary stage of the conceptualisation of the categories. The next data source that drove the second evolutionary stage was participant observation. The final evolutionary stage was facilitated through a theoretical sampling process.

The final theory was developed through the application of a process of scientific analogising. In this process, three formal learning theories were compared against the problem context. The process of scientific analogising identified the seed theory that was to be used to develop the answers to the research question in this study. This theory illustrates how the learning process engenders courage to take experiential actions that lead to concrete experiences for learning. The theory in addition explains how this learning process creates transformational learning experiences that increase management effectiveness.

This theory provides a practical adequate explanation of the mechanism that created the studied phenomenon. In addition, the major theoretical contribution that this study made towards experiential learning theories is to highlight the role that courage plays during the action learning process.

## EXTENDED ABSTRACT

Developing effective managers is a key focus area for many organisations. This study focuses on a management development initiative, partnered between the University of Cape Town, Graduate School of Business and the multinational gold-mining company, AngloGold Ashanti. The purpose of the management development programme is to develop management effectiveness in AngloGold Ashanti. This partnership lasted for several years and graduated in excess of 460 managers from these academically accredited programmes. Anecdotal evidence prior to this study indicated that the managers who fully engaged the learning process experienced a transformational learning process that increased the effectiveness of their management practices. On each programme, there were however, students who did not appear to experience the same transformational learning experience. As the academic co-ordinator for these programmes, I wanted to gain insight into the mechanism that created this phenomenon.

The development of a conceptual framework that could guide this study was the first focus of the research effort. A pilot study was conducted in order to develop the conceptual framework. This pilot study took place over a period of two years and research took place both in the classroom as well as in the students' workplace. The pilot study focused on identifying the factors that affect a student's learning process on an experiential learning, management development programme. Approximately 240 students were included as research participants in the pilot study.

The pilot study highlighted the fact that learning readiness and the ability to manage one's own learning are critical elements that affect engagement of the learning process that leads to transformational learning. The specific research problem lends itself towards the development of a research question through a process of problematization (Alvesson and Sandberg, 2011a) in that it questions the basic assumption of the humanist school of thought on adult learning. This would constitute the theoretical contribution of this study. This study aims at defining the causal mechanism that facilitates transformational learning in learning-ready students who have the ability to manage their own learning.

The research question for this study was therefore formulated as:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

The research process led to the development of five key variables that were used to develop the answer to the research question. These variables were used to construct a causal mechanism that explains the social processes that created the research problem. The theory explains how the learning process engenders courage to take experiential actions that lead to concrete experiences for learning. The theory in addition explains how this learning process creates transformational learning experiences that increase management effectiveness in AngloGold Ashanti.

The compatibility of my critical realist worldview was considered in the selection of a methodology that led to the development of the research answer. Grounded theory was selected as a suitable methodology to conduct the research and develop the answer. I adopted Charmaz's (2006) interpretation of grounded theory due to her critical realist interpretation of grounded theory. The first data gathering process in this study included documentary sources from 232 students who completed the management development programmes over a period of 7 years. This sample included just over 50% of the total number of students who completed the programmes. In addition to this data, other data gathering techniques were used in order to get triangulation of methods and sources.

Conceptualisation of the key categories identified in the grounded theory process took place over three evolutionary stages. Each stage aimed at emerging, shaping and formalising the categories that will be used to develop the final theory. These categories were conceptualised through a process of constant comparison and theoretical sampling through an interview process. The development of the final categories was completed through theoretical coding.

The conceptualisation process in my study progressively raised the level of abstraction of the study to the point at which I could identify experiential learning as the parent discipline for my study. The literature review in this study was therefore completed after the key variables were identified in the grounded theory process.

The completion of the literature review enabled the advancement of the key categories to theoretical categories. It also positioned these categories for the theory building process. The theory building process drew on a two-stage process. Beer's (1966) 'process of scientific analogizing' was used during stage one of the theory building process to identify a seed theory that was used to develop the theory for this study. In applying Beer's process, three adult learning theories were identified and used as scientific models.

The application of Beer's (1966) model enabled the comparison of the identified key variables of this study, with the three selected learning theories. This process highlighted the similarities and differences between the key concepts in the theories and those identified in this study. The outcomes of this process highlighted that the learning theory that best describes the phenomena in this study is Kolb's (1984) experiential learning theory. In stage two of the theory building process, the similarities and differences between Kolb's theory and the key variables identified in this study were used to develop a conceptual model that explains the underlying causal mechanism that created the studied phenomenon. This causal mechanism provides the answer to the research question.

The major theoretical contribution that this study made towards experiential learning theories, is to highlight the role that courage plays during the action learning process. This was deemed an essential element in order to create concrete experiences that form the basis for reflection and learning. In addition to this contribution, this study defined the learning readiness dimensions that a student should have to embark on an experiential

learning process. This contribution is significant in that it has implications for practitioners and it could improve the results of the experiential learning process.

The third contribution that this study made is that it provided empirical evidence to illustrate that experiential learning could develop skills other than just psycho-motor skills. In this study students developed an increase in cognitive flexibility, as well as social astuteness in addition to other managerial skills. The last contribution that this study made was to establish a relationship between experiential learning theory and transformative learning theory. This study illustrated that the experiential learning process could facilitate a change in the students' frame of reference, leading to a transformative learning experience.

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## PLAGIARISM DECLARATION

1. I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is your own.
2. I have used a recognized convention for citation and referencing. Each significant contribution and quotation from the works of other individuals has been attributed, cited and referenced.
3. I certify that this submission is all my own work.
4. I have not allowed and will not allow anyone to copy this essay with the intention of passing it off as their own work.

Signature:

Signed by candidate

Date: **16 November 2014**

## ACKNOWLEDGMENTS

My PhD journey feels like a 'Journey of a Thousand Miles'. It had its 'ups and downs'; and at times, I was wondering if it is all worth it, or if I should just pack it up and forget about it. I however had the constant and wonderfully patient support of my beloved husband and children that helped me through this journey and if it was not for their encouragement and support, I think I would have wandered off the road into blissful ignorance a long time ago. I would therefore firstly like to dedicate this thesis to the people who mean the most to me in my life, my wonderful husband, Robert and my gorgeous daughters, Danica and Mishca. Without your support and firm belief in my abilities, I would not have been able to complete this journey.

No academic endeavour could however be successful without the guidance of a competent supervisor. I am sure that my supervisor also at times wondered if I was ever going to 'get there'. To my supervisor, Tom Ryan, I would like to express my utmost and sincerest appreciation for your guidance and assistance during this journey. From the first day that I sat in your EMBA4 class back in 2002, I was impressed with your vast knowledge and wisdom. I there and then decided to 'adopt' you as my mentor without you even knowing about it. I literally 'stalked' you academically to learn as much as I could from you and you never held back in sharing your knowledge with me. Thank you for being the constant beacon that guided me through this PhD journey. Even though I did not always enjoy your inputs, as it usually meant – 'back to the drawing board' - your sound advice and guidance stretched me academically and helped me develop into a much richer person.

This thesis is in addition largely the result of my involvement with the AngloGold Ashanti management development programmes. Without the kind assistance of key personnel, I would not have been able to use this part of my work responsibilities as part of my research. To Mark Cutifani, Charles Carter, Gustav Van Veijeren, Steve Rickman and Martie Staley, thank you so much for your assistance in all aspects of my research. Especially a huge thank you to Martie for going to the trouble of getting permission from the students for me to use their assignments. A last huge thank also has to go to Celeste Wilson of the University of Cape Town Graduate school of Business who assisted me in painstakingly coding the student assignments to extract insights. I hope that this thesis does justice to the many late nights that we spent analysing assignments.

Many other people gave me constant words of encouragement throughout this journey. I would do an injustice to attempt to name them all for fear of leaving anybody out. To all of you (you know who you are!) –

***A Huge thank you to All!!***

# 1 INTRODUCTION

This study focuses on a management development initiative partnered between the global gold mining company, AngloGold Ashanti and the University of Cape Town, Graduate School of Business. This grounded theory study defines the causal mechanism that enables learning-ready, engaged students who can manage their own learning to develop into effective managers within their organisation. I made a conscious decision to write my thesis in the first person, as it enabled me to bring my own voice out more clearly in the thesis, as opposed to an impersonal third-person thesis. I will therefore present this thesis in first person writing style.

In this chapter, I will describe the background of the study and provide justification as to why this study was worth doing. My first focus in this chapter is to explain my personal worldview that will encapsulate the ontological stance of this study. The ontological perspective in addition includes the key elements of my epistemological view. After my ontological perspective, I explain the background to this study that will include a description of the research context. The research context provides the context of the study that allows me to present the rationale for the pilot study that I conducted to develop the conceptual framework for my study. I will provide an explanation of the conceptual framework, followed by the justification for the research as well as an explanation of the methodology, delimitations of scope and an outline of the thesis.

## 1.1 BACKGROUND TO THE RESEARCH

I am a senior lecturer at the University of Cape Town, Graduate School of Business (UCT GSB), responsible for the facilitation of management development programmes for corporate clients. In this role, I became interested in determining why some students excel in their management development programmes and others do not. One of the key design components of these programmes is the principles of adult learning. Adult learning is a large and complex field that does not have specific boundaries. Merriam, Caffarella and Baumgartner (2007) defined adult learning as any type of learning that an adult engages in, beyond his/her formal schooling. They also proposed that one way in which to understand the field is to study who participates – the adult learners. To this effect, Merriam et al. defined five characteristics of an adult learner that were very applicable to the participants of this study. According to Merriam (2001) an adult learner:

- directs his/her own learning,
- has many life experiences that contribute to his/her learning,
- is interested in relevant learning that could assist with problem solving,
- has learning needs that often relate to the learner's changing social roles, and
- is motivated mostly by internal factors rather than external factors. (p. 5)

In my thesis, I therefore study the adult learners in my management development programmes. My general approach towards the assessment of learning focuses on adult learning theories within the context of management development.

### 1.1.1 *BACKGROUND OF THE RESEARCHER*

I have 15 years' experience in the Public Sector in South Africa, mainly in the Defence Industry. I spent a significant portion of this time in the training and development environment. During the latter years of my Defence Force Career, I completed the Executive MBA programme at the UCT GSB. The new qualification and skills enabled me to make a career change to the consulting industry. Here I spent an additional number of years gaining practical experience in management consulting, contributing to a wide range of experiences in the services and government sectors. It is during this time that I became involved with teaching at the UCT GSB.

I have been involved with the UCT GSB's management development programmes since May 2007. I was initially contracted on a course-by-course basis until I was offered a permanent part-time position as a senior lecturer in 2010. In this capacity, I was given the responsibility of academically co-ordinating several academic programmes at either the Post Graduate Diploma or Certificate level. I am also the lead systems thinking and action-learning lecturer on these programmes. I became involved with the AngloGold Ashanti (AGA) management development programmes in 2008.

Over the period of this study, I have academically co-ordinated not only the AGA programmes, but also similar programmes for other clients at both the postgraduate and certificate level.

In my role of academic co-ordinator, I am constantly re-assessing the most appropriate approach and method to facilitate management development for key clients, through the integration of academic and workplace learning, combined with systems thinking.

### 1.1.2 *THE RESEARCH CONTEXT*

According to Illeris (2009), learning is influenced by the context within which learning occurs. It is therefore important to have an appreciation for the learning context. The research context for my study is a targeted management development initiative, partnered between the multinational gold mining company, AGA and the UCT GSB. In the following sections, I provide a brief background to each of the organisations as well as a broad description of the programme design.

#### *Background to the University of Cape Town Graduate School of Business*

The UCT GSB is located in the near vicinity of the Cape Town Waterfront in the Western Cape of South Africa. It has its roots in Africa and focuses on developing a competitive edge in emerging market business through three main competitive areas, namely (University of Cape Town Graduate School of Business, 2013):

- Academic Excellence;
- Societal Relevance; and



- Pedagogical Excellence.

The UCT GSB consists of the following key departments:

- MBA
- Executive MBA
- Open Academic Programmes
- Executive Education; and
- Specialised and Contracting Units.

My main teaching responsibility falls within the Executive Education Department. The Executive Education Department hosts both accredited and non-accredited programmes of various durations. The specific area of focus for this study is the accredited, company specific programmes that I facilitate on behalf of the Executive Education Department.

### *Background to AngloGold Ashanti*

AGA has 21 operations in 10 countries on four continents, as well as several new exploration programmes in both established and new gold producing regions in the world. In 2011, AGA employed more than 61 000 people, including contractors (Ashanti, 2012). Figure 1 below depicts the global footprint of AGA business operations.

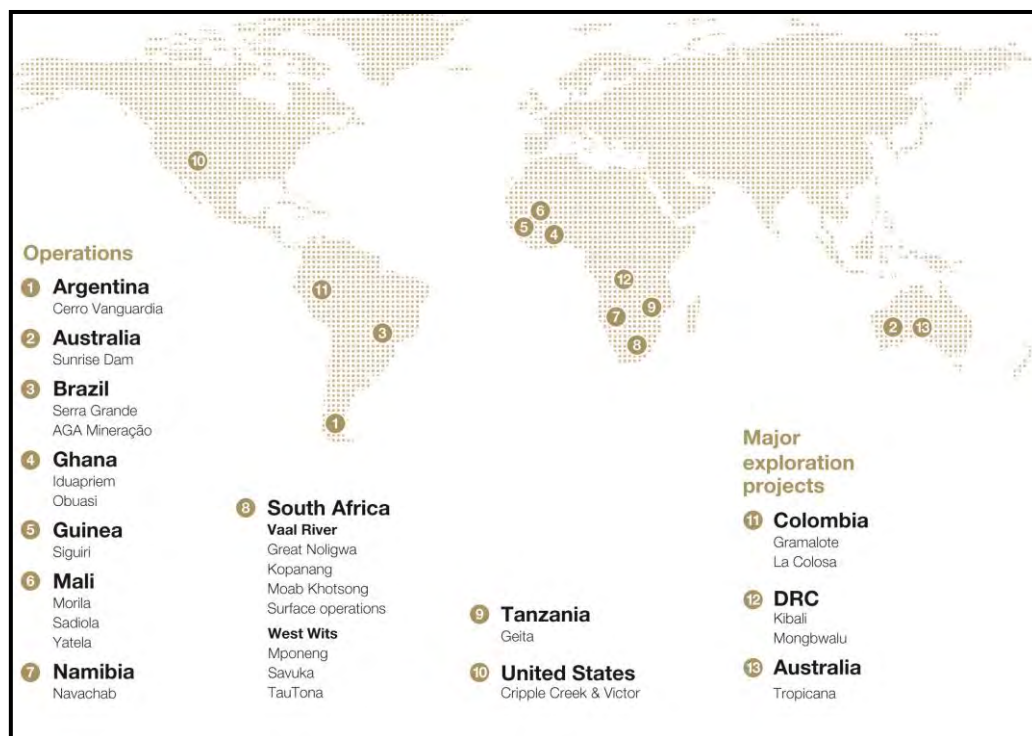


FIGURE 1. GLOBAL FOOTPRINT OF AGA BUSINESS OPERATIONS (ASHANTI, 2012)

Figure 1 on the previous page clearly illustrates the global footprint of AGA. The global footprint is an important factor to keep in consideration for this study, given that the students who embarked on the management development programmes represent all business operations of AGA. The mix of students on the programmes is therefore culturally representative from various parts of the world.

AGA's corporate vision is "To be the leading mining company" and its mission statement is "We create value for our shareholders, our employees and our business and social partners through safely and responsibly exploring, mining and marketing our products. Our primary focus is gold and we will pursue value creating opportunities in other minerals where we can leverage our existing assets, skills and experience to enhance the delivery of value." (Ashanti, 2012).

To fulfil its mission and create value for its stakeholders, AGA focuses on five core strategies:

- People are the business;
- Grow the business;
- Manage the business as an asset portfolio;
- Maximise margins; and
- Deliver sustainable outcomes

Closely linked to its vision, mission and core strategies, AGA has strong organisational values that managers continuously communicate throughout the organisation (Ashanti, 2012).

A key challenge for any organisation is to develop and maintain a competent management cadre. One of the key business challenges that AGA aimed to address through a management development initiative was to attract, develop and retain top management talent that will be able to drive the achievement of the company's business objectives. In order to achieve this, AGA needs to develop managers that can effectively operate at higher levels of work complexity. This required a cadre of managers with significant new skills.

The second aspect of AGA's business challenge was to develop a learning organisation that will facilitate the development of a top leadership team that has the requisite variety to lead extremely diverse teams that will be able to meet business objectives. In 2003, AGA conducted a review of their management development programmes and decided to move their training from their existing service provider in order to develop a partnership with the UCT GSB.

In partnership with AGA, the UCT GSB developed innovative management development programmes that could meet the management development needs of AGA. These programmes were not only tailored to AGA's needs, but were accredited through the South African Council on Higher Education and registered with the South African Qualifications Authority, thereby providing participants with a fully accredited academic qualification. The programmes have their roots in Systems Thinking and Action Learning and focus on a deeply

embedded developmental process that not only provides participants with the required management skills, but also facilitates personal development.

The AGA/GSB partnership is built on mutual respect and has, over the past ten years, seen the successful graduation of some 460 AGA managers via the suite of management development programmes. In the next section I will provide a description of the programme design.

### *The Programme Design*

The management development programmes developed by the UCT GSB were designed in accordance with recent developments in social science and management that are referred to as the practice turn (Schatzki, Cetina, & Von Savigny, 2001). The programme emphasises the interaction between context, theory and practice and draws on Systems Thinking and Action Learning as useful tools in the sense-making process.

The approach of this eighteen-month modular programme is that students are facilitated through a process of developing conceptual models during the contact periods that provide the theoretical foundation of their learning process. The conceptual model developed during the contact period is then implemented during the inter-modular periods through an action research and learning process. The managers therefore develop more effective management practices through the action research and learning process that is grounded in their work context (Ryan, 2010).

The research context for this study therefore is the management development programmes that were developed by the partnership between the UCT GSB and AGA. In the next section, I provide a description of the research problem.

## **1.2 RESEARCH PROBLEM**

Given my background, current role, responsibilities and the context provided for this study, the following sections provide a description of the field of study as well as a broad description of the research problem.

### **1.2.1 *SPECIFIC FIELD OF STUDY***

I decided to focus on students who engaged in management development programmes through AGA, at the Certificate and Post Graduate Diploma level specifically; and only those students who had completed their programmes at least a year ago from the commencement of this study. I therefore selected programmes that were completed over the period 2003 – 2009 for my study. The rationale for selection of this sample grouping includes amongst others:

- The Certificate and Post Graduate Diploma programmes are both accredited programmes that place an additional level of academic rigour on the students, as opposed to a non-accredited programme. I

made the assumption that this additional dimension adds to the student's level of commitment and dedication with which he/she would engage the programme.

- I also assumed that students who have only just completed the programme would suffer a certain degree of study fatigue and may not be sufficiently objective in their responses to research questions. I therefore decided to allow a 'cooling off' period before engaging students for the purpose of this study.

The role and responsibility of the academic co-ordinator for the management development programmes is to ensure that the programme outcomes are achieved and that UCT GSB increases the effectiveness of AGA managers. In the next section, I provide further insight into the research problem.

### 1.2.2 *THE CHALLENGE OF DEVELOPING EFFECTIVE MANAGERS*

The purpose of the management development programmes is to develop effective managers. Mintzberg (2009) indicated that the topic of managerial effectiveness is 'tricky' in that there are so many attributes that various entities would ascribe an effective manager to possess. His list of management qualities therefore is rather rooted in the practice of managing, as opposed to a personal quality ascribed to an individual. In the context of this study, I took a similar approach in defining what an effective manager is. I therefore interpret an effective manager as one that can **develop and implement effective action strategies**, aimed at achieving organisational goals and objectives.

Over several years of co-ordinating and facilitating an adult learning process on these management development programmes, I observed that the programmes resulted in significant personal development in students who fully engage the learning process. Evidence suggests that these students successfully improved the effectiveness of their management practices. There however seem to be students on each cohort who do not appear to derive the same benefits from these programmes, even if they manage to successfully complete the programme and obtain their qualifications.

As an academic co-coordinator, I developed a keen interest in understanding what the mechanism is that enables some students to clearly derive significant benefit from the programme and increase the effectiveness of their management practice. If I can understand what this underlying mechanism is, I could possibly improve the learning process to ensure that more students derive the same benefit from the programmes.

The research problem therefore was to determine what the mechanism is that enables the development of effective managers on these programmes. I further defined the research problem by conducting a pilot study within my practice that could assist me in understanding what the environmental factors are that affect the students' learning process. This provided me with a conceptual framework that I used to guide my research process.

Environmental factors refer to all elements that impact on an individual's learning process. These could include physical elements like access to resources or emotional factors like family, work or social commitments as well as internal drive. Illeris (2009) referred to three dimensions that influence the learning process. These are:

- Cognition – referring to the individual's knowledge and skills
- Emotion – referring to the learner's feelings, emotions, attitudes, etc; and
- Society – referring to external interaction with people and the physical environment (Merriam, Caffarella, & Baumgartner, 2007).

For the purpose of this study, environmental factors are any of those aspects that affect the learning process. This study did not focus on defining the learners' existing concepts/ideas at the start of the learning process; it can therefore only identify those factors that will affect learning whilst engaged in the learning process. The central focus of this study was to determine what the underlying causal mechanism is that leads to the transformational learning experiences that enabled an increase in management effectiveness. This research focus leads to the development of the key research question that will be presented in the next section.

### 1.2.3 RESEARCH QUESTION

Following the development of a conceptual framework, I discovered that two key elements affected the students' ability to engage the learning process. These elements are learning readiness and a student's ability to manage his/her own learning. The research question that guided my research process was therefore formulated as follows:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

It is evident from the background to this research, the research context and the research question, that this study is rooted in the social world. In the next section, I will describe my worldview that will provide the ontological framework within which I conducted my study.

## 1.3 MY ONTOLOGICAL POSITION

Bhaskar (2008) indicated that the fundamental question in the philosophy of sciences is about the nature of reality. He asserted that the main question focus is on what properties society and people possess that could make them possible research objects in order to create knowledge (Danermark, Ekstrom, Jakobsen, & Karlsson, 2002, p. 5). Blaikie (2000, p. 8) similarly interprets ontology by indicating that it is "claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other. In short, ontological assumptions are concerned with what we believe constitutes social reality."

According to these authors, ontology is therefore concerned about the nature of reality and how we create knowledge about reality.

### 1.3.1 *THE NATURE OF REALITY AND KNOWLEDGE*

*– reality is independent of our knowledge thereof*

Empiricism and strong forms of idealism directly interpret statements about what exists into statements about our knowledge of what exists. Archer et al. (1998) referred to this phenomenon as the reduction of the question of what is to the question of what we know. Bhaskar (2008, p. Location 1047 of 7070) called this tendency the epistemic fallacy when he stated that "...the epistemic fallacy is manifest in a persistent tendency to read the conditions of a particular concept of knowledge into an implicit concept of the world."

My worldview resonates with the above interpretation of reality and knowledge in that I believe that there is a world out there that exists, regardless of what we know about it. My view is therefore similar to a realist view that maintains that, "reality exists independently of our knowledge of it". (Danermark et al., 2002, p. 17). In the design of my research framework, I therefore have to consider steps to deal with Bhaskar's (2008) epistemic fallacy. In this study, I will therefore take a critical realist view of the research problem and answer in order to deal with the epistemic fallacy.

We can thus make a distinction between knowledge and the objects of knowledge. I could therefore infer that there is a real world (the objects of knowledge) that we do not have access to; we can only provide interpretations (knowledge) of this real world (Danermark et al., 2002).

If we can accept that there is a real world independent of our knowledge of it, how must this real world appear to make science possible?

Bhaskar (2008) described a stratified ontology that seems extremely plausible and a useful worldview to adopt in order to make sense of the real world.

### 1.3.2 *STRATIFICATION OF SCIENCE – THREE DOMAINS OF KNOWLEDGE*

*What must reality be like to make science possible?*

Bhaskar (2008) referred to the accessible (or observable) dimension, as the transitive dimension of science. He described the transitive dimension as knowledge created by men (*sic*) because of their social activity. The transitive domain is therefore the 'raw materials of science' that consist of facts and theories, paradigms and models, methods and techniques of inquiry available to the researcher.

One of the key arguments against a positivist approach to knowledge construction in social sciences is however that this approach cannot show why these observations in the transitive dimension are significant, or

what the conditions are under which they are of significance (Bhaskar, 2008). The underlying belief of critical realists is therefore that there is more to 'what is' than 'what is known' (Craig, 2005). In this regard, Bhaskar (2008) argues that science is not just about recording observable events, but it is also about objects, structures, or entities that exist and give rise to these observable events, even though these objects, structures, or entities may not be observable to the researcher (Mingers, 2010). There is in other words more than just the transitive dimension of knowledge. Bhaskar (2010) referred to this other dimension as the *intransitive* dimension of knowledge.

The key arguments for the intransitive dimension of knowledge hinge around the idea that there is an independently existing world of objects and structures that are causally active, giving rise to the actual events that do and do not occur. Events could therefore be independent of our experiences thereof. Mingers (2010, p. 21) stated that, "the realist asserts the primacy of ontology - the world would exist whether or not humans did". Given the argument presented thus far, it seems plausible that there could be a transitive and intransitive dimension of knowledge.

Bhaskar (2008) further made a distinction between two dimensions within the intransitive domain of knowledge. He firstly referred to the 'real' as mechanisms or real structures that exist independently of human interaction and these could often be out of phase with the actual patterns of events that are generated. These mechanisms referred to in the 'real', generate events in the domain referred to as the '*Actual*'. These events are observable, or could remain unobservable. Bhaskar (2008) stated that because you have not perceived an event, you cannot say that this event did occur; but you can also not say that it has not occurred or could not possibly occur. This premise is illustrated by the very familiar quote "If a tree falls in a forest and no one is around to hear it, does it make a sound?"

The observable events are referred to as the 'Empirical'. Sayer (2000, p. 12) indicates that "The empirical is defined as the domain of experience, and insofar as it refers successfully, it can do so with respect to either the real or the actual though it is contingent (neither necessary nor impossible) whether we know the real or the actual." Observing events in the actual creates confidence in what exists, but it should be acknowledged that existence itself does not depend on observability and therefore realists accept a causal claim in addition to observability (Sayer, 2000).

It also has to be taken into consideration that some powers may exist but remain unexercised. By implication the events that occurred may not exhaust what could occur should the underlying mechanisms in the real all be activated. Sayer (2000, p. 12) adds: "The nature of the real objects present at a given time constrains and enables what can happen but does not pre-determine what will happen. Realist ontology therefore makes it possible to understand how we could be or become many things which currently we are not"

A change in the transitive dimension, therefore does not presuppose a change in the intransitive. Bhaskar (2008, p. 11) illustrated this by stating “When theories change (transitive dimension) it does not mean that what they are about (intransitive dimension) necessarily changes too....”

Bhaskar (2008, p. Location 1359 of 7070) therefore proposed three domains: “Mechanisms, events and experiences thus constitute three overlapping domains of reality, viz. the domains of the real, the actual and the empirical. “ These domains are depicted in the figure below.

	<i>Domain of Real</i>	<i>Domain of Actual</i>	<i>Domain of Empirical</i>
<i>Mechanisms</i>	✓		
<i>Events</i>	✓	✓	
<i>Experiences</i>	✓	✓	✓

FIGURE 2. BHASKAR’S THREE DOMAINS (BHASKAR, 2008, P. 2)

Acknowledgement of the third dimension of reality (the causal mechanisms that generate the observable patterns) distinguishes critical realism from other forms of realism. (Danermark et al., 2002).

In addition to a real world that is independent of our knowledge thereof, and a stratified ontology, I also believe that we can never fully access the real world, but that we can only give our own interpretations thereof. Danermark et al. (2002, p. 20) support this view when they pointed out that if we had full access to reality, why then do we make mistakes. They therefore concluded that, “this reality and the way it behaves, are in important respects, not accessible to immediate observation.”

If we can only provide our interpretations of the real world, what is the truth then?

### 1.3.3 *THERE IS NO SINGLE TRUTH*

Constructivists contend that there is no single truth as “the mind structures the world by organising itself... The cognitive organism shapes and coordinates its experience and, in doing so, transforms it into a structured world” (Von Glasersfeld, 1995, p. 57). Charmaz added to this argument by stating that “any theoretical rendering offers an interpretive portray of the studied world, not an exact picture of it. (Chamaz, 1995b, 2000; Guba & Lincoln, 1994). Research participants' implicit meanings, experiential views - and researchers' finished grounded theories- are constructions of reality. “ (Charmaz, 2006, p. 10).

In this regard Piaget contended that what we perceive as ‘real’ is always the experiential world, or according to Bhaskar, the empirical. (Bhaskar, 2008). The consequence is therefore that one cannot adopt the constructivist position as the ‘truth’ but rather as a working hypothesis that may or may not be useful at a given time. Von Glasersfeld (1989) therefore states that ‘cognition is a tool for adaptation’ aimed at providing viable conceptual structures.



Given the above arguments, one could therefore accept that multiple realities would exist, as 'true knowledge' would have to be independent of the knowing subject. I have now established that reality represents an interpretation by the researcher. Von Glasersfeld (1995) in addition added that an individual's cognitive structures cannot truly represent reality due to the unreliability of the human senses due to the influence of context and human attitudes. Knowledge construction is therefore always constraint, thus leading to multiple interpretations of reality.

I therefore acknowledge that my interpretation of the mechanism that enables the development of effective managers for AGA is only my interpretation of reality and it is not reality itself. Other researchers may produce different explanations of this same phenomenon. Given the nature of the social world, this is however all that I have as a working explanation of the phenomenon and it will have to be tested for its usefulness as an explanation of reality.

Such an explanation of reality could however be given durability through repetition of the results obtained or through reliable experiential confirmation. Therefore, in order to establish some sense of 'truth', methods of verification are required thus creating a requirement for interpretations to be tested for objectivity. From a constructivist point of view, knowledge is therefore rather deemed viable as opposed to being the truth. This notion is an extremely useful perspective to view knowledge in a changing context, because only if one could perceive an experience to be the same as a previous experience could it attract some form of permanence. (Von Glasersfeld, 1995).

Viability could however only exist up to a point and one could in addition not assume that the theory that was developed is the only interpretation of that reality in an ontological sense. When cognitive structures are however deemed viable, it could be called an 'objective' theory. What we therefore so often refer to as reality, should rather be referred to as fairly durable perceptual and conceptual structures which we managed to establish as an interpretation of reality that are useful and consistent to some degree with our actual experiences. Von Glasersfeld (1995) also indicated that knowledge is judged based on its conduciveness to attain goals, but knowledge could not necessarily be seen as enduring.

Given the above explanation of knowledge as opposed to the 'truth', knowledge could also be seen as being adaptive in that the cognitive process organises the experiential world and not the ontological reality, thereby enabling a researcher to make sense of his/her world. In this regard, the learning process is a self-regulated process and cognition as an instrument of adaptation, "as a tool for fitting ourselves into the world we experience." (Von Glasersfeld, 1995, p. 14).

Von Glasersfeld (1995, p. 121) however added that "no analysis of social phenomena can be successful if it does not fully take into account that the mind that constructs viable concepts and schemes is under all circumstances an individual mind". I accept and believe that, in the social world, no single person can

develop knowledge without the influence of other people to some extent. Knowledge is therefore socially constructed.

#### 1.3.4 *KNOWLEDGE IS SOCIALLY CONSTRUCTED*

One of the principles of constructionism is that knowledge is socially constructed, in that individuals and groups participate in the creation of their perceived social reality. This reality is therefore ever evolving as social interaction between the actors occurs. Language however plays an essential role in the social construction of knowledge. Von Glasersfeld (1995) indicated that the meaning of words is in the mind of the speaker, not so much in the spoken words. Corroboration between actors could therefore be seen as a second order of viability to knowledge and this in turn stabilises and solidifies our experiential reality into useful cognitive structures or theories. When it is perceived that knowledge cannot be improved any further, this is taken as the truth.

I believe that my interpretation of the words of the research participants may not always reflect the true meaning as intended by the research participant. This is a factor that I will keep in mind and make provision for to ensure validity of the theory developed. In the social construction of knowledge, the knowledge that is created in addition is embedded in a specific context. I also believe that the context has an influence on the nature of the knowledge that is created.

#### 1.3.5 *KNOWLEDGE CONSTRUCTION IS CONTEXT DEPENDENT*

Constructivists believe that social phenomena develop in particular social contexts. The concepts or practices in a particular context may seem obvious and natural but are actually artefacts of that context and may not be applicable in another context. In classic grounded theory, Glaser and Strauss indicate that theory emerges from data (Charmaz, 2006). This would imply that the theory is contextualised in the research area. The critical realist also acknowledges the importance of context in social research.

Maxwell (2005, p. 6) added that “For the social sciences, the social and cultural context of the phenomenon studied are crucial for understanding the operation of causal mechanisms” He further states that causal context is important for generalisation but also for the conduct of research itself. In addition to this, context is essential in order to take the meanings, belief, values and intentions held by participants in the study into consideration. Maxwell (2005) indicates that this could be investigated best through qualitative methods.

Given my ontological stance, what would then be a suitable research strategy that could create useful knowledge of the phenomenon of interest?

#### 1.3.6 *RESEARCH STRATEGY OF A CRITICAL REALIST*

A realist starts the research process with the identification of the observable phenomena that he/she seeks to understand. In accordance with Bhaskar’s (2008) stratification of science, this would refer to the transitive

domain of knowledge and in particular the empirical as described in his three domains. Piaget referred to the 'real' as the experiential world.

A realist then attempts to explain this observable phenomena through the construction of plausible underlying structures and mechanisms that are deemed active in creating the phenomena. Mingers (2010) asserted that Bhaskar draws explicitly on autopoiesis as a distinguishing feature of the process of knowledge creation. In order to gain insight into these underlying structures and mechanisms, the realist has to rely on abstraction and conceptualisation of a theory to explain the phenomena. Sayer (2000) indicated that abstraction aims at delineating the various components or influences and how they combine and interact and only after this is understood, can the researcher return to the concrete phenomena and make sense of it. He also stated that "A common aspect of all critical realist research is the priority given to conceptualization and abstraction, for how we 'carve up' and define our objects of study tends to set the fate of any subsequent research" (Sayer, 2000, p. 27).

According to Piaget knowledge does not constitute a 'picture' of the world. He asserts that knowledge does not represent the world at all, but that it is made up of 'action schemes, concepts, and thoughts' (Von Glasersfeld, 1995). The reference to action schemes and concepts presupposes a particular approach to knowledge construction that is essentially inductive. Von Glasersfeld (1995, p. 70) stated:

"The construction of object concepts and schemes is essentially inductive. By empirical abstraction, sensory particulars that recur in a number of experiential situations are retained and coordinated to form more or less stable patterns. These patterns are considered viable insofar as they serve to assimilate new experiences in a way that maintains or restores equilibrium."

Due to the similarities in making a distinction between knowledge and the 'real' as well as the emphasis on abstraction, constructivism is therefore considered a compatible epistemology for a critical realist ontological stance.

Given the above, a research methodology that compliments a critical realist perspective, as well as a constructivist point of view, would need to be able to take context into consideration, as well as being open to the theory of stratification of science. Grounded theory is a suitable methodology that qualifies as a qualitative research methodology that develops theories grounded in the data found in the research context (Charmaz, 2006).

Charmaz (2006, p. 178) indicated that "successive levels of abstraction through comparative analysis constitute the core of grounded theory analysis". In accordance with Bhaskar's explicit link with autopoiesis, as well as the constructivist approach to knowledge construction, Fleetwood indicated that social phenomena can be explained (with difficulty) but not easily measured, therefore the preference for a qualitative research approach (Fleetwood, 2011). Grounded Theory is therefore a compatible methodology for a critical realist to

construct knowledge about observable phenomena as it is conducive towards a qualitative study and it is centred in abstraction.

Sayer (2000, p. 20) however asserted that in instances where a researcher is concerned about 'discourses and the meaningful qualities of social practices' insight cannot be obtained through abstraction followed by concrete synthesis, but through interpretation. In order for the researcher to interpret what the research participants mean, one however has to relate their discourse to the context. The notion of context is central to both critical realism and constructivism.

Charmaz (2006) contended that the Grounded Theory process leads the researcher to build 'levels of abstraction directly from the data'. The study therefore culminates in the development of a theory that is 'grounded' in the context and provides a theoretical understanding of the phenomena under study. . In this regard, Grounded Theory also complements the Critical Realist perspective on the importance of understanding the research context.

Given the above, it could be concluded that my worldview is that of a critical realist and that a compatible view of knowledge creation within critical realism is constructivism. I also indicated that Grounded Theory is a compatible methodology with a critical realist and constructivist ontology and epistemology. In the next section, the conceptual framework for this study will be explained.

At the outset of this study, I found it necessary to get a grasp of the key concepts in the research problem. I therefore decided to develop a conceptual framework that could assist me in identifying the main research question and would provide focus to the grounded theory process. This conceptual framework was developed within the ontological and epistemological perspective that was explained in the above sections.

## 1.4 CONCEPTUAL FRAMEWORK

Given my ontological position described above, the development of the conceptual framework for this study was aimed at describing the underlying causal mechanism in the 'real' that created the phenomena of interest. During the early stages of this study, there was a need to fully understand the factors that affect the learning process. This would enable me to improve the learning process. Given my position in relation to the management development programmes, action research was a useful methodology to apply in order to develop the conceptual framework. I therefore used action research to develop a conceptual framework that would explain the research problem in more detail and assist in developing the main research question for this study. The next sections will explain the process of developing the conceptual framework, as well as the details of the conceptual framework that lead to the development of the research question for this study.

### 1.4.1 DEVELOPMENT OF THE CONCEPTUAL FRAMEWORK

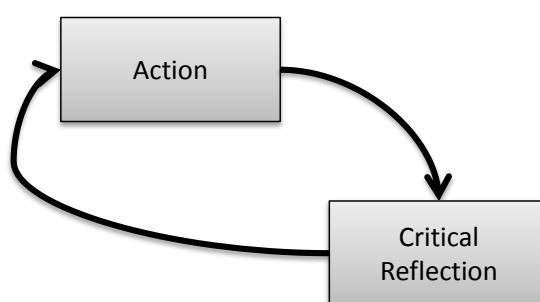
The methodology applied to develop the conceptual framework was action research. Action research is a methodology that simultaneously allowed me to gain insight into the research problem, and at the same time improve the phenomena studied (Dick, 2002). Action research was therefore an appropriate methodology for me to generate knowledge of the research problem.

#### The Action Research Process

Action research is a process that allows action and research to take place concurrently, the one re-enforcing the other continuously (Dick, 2002). Herr and Anderson (2005) indicated that action research makes 'action' key to the research process, whereas traditional research tends to take a more distanced approach towards action. . The people who are affected by the change resulting from the process are usually part of the action research process, thereby improving insight and creating buy-in of the required change. Action research therefore eliminates the divide between the decision-makers and the doers (Dick, 2002).

Action research is predominantly seen as a collaborative process. In this study however, I was the main practitioner who focused on improving the effectiveness of a learning process as well as the prominent research participant in this action research process. This particular stance towards action research is labelled as a route towards professional development in education (Herr & Anderson, 2005).

Dick (2002) explained that research and action is combined through critical reflection. Action is followed by critical reflection that is again followed by action. This process forms what he referred to as an 'action research spiral'. Such an action research spiral is depicted in Figure 3 below.



**FIGURE 3. AN ACTION RESEARCH SPIRAL (DICK, 2002)**

Each action research 'spiral' depicted in Figure 3 above, gradually increases the researcher's knowledge of the original research question. Action research can therefore be both flexible and rigorous at the same time. This is achieved by commencing the process with a fairly 'loose' design that is then refined as the researcher learns more about the situation being studied. The research methods are therefore refined continuously in order to achieve a better fit with the situation. The research questions for each cycle therefore become more and more precise (Dick, 2002).

This approach is reflected in the alternative diagram that reflects the action research spiral as depicted in Figure 4.

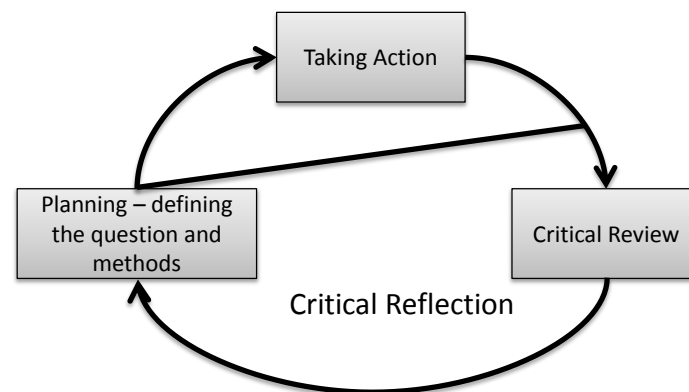


FIGURE 4. AN ALTERNATIVE WAY OF THINKING ABOUT THE ACTION RESEARCH SPIRAL (DICK, 2002)

Rigour in action research is derived from the involvement of all relevant parties, as well as critical reflection in each cycle. (Dick, 2002) Herr and Anderson (2005, p. 27) indicated that there are three types of knowledge interests served by an action research process. These are:

- Technical interests - focused on the human desire to take control of a social setting;
- Practical interests – aimed at gaining deeper insight through interpretation; and
- Emancipatory interests – aimed at investigating ideology and power in organisations.

Herr and Anderson (2005) clearly illustrate that there is no single methodology for action research and that the methodology should be aimed at satisfying the knowledge interest. According to Herr and Anderson, the researcher with a practical interest employs interpretive methodologies in order to generate knowledge that can influence practical judgements. According to the continuum and implications of positionality developed by Herr and Anderson, my positionality in this study is as an insider, researching my own practice. The knowledge contribution is towards improving my knowledge base and teaching practice as well as professional transformation. Research traditions associated with this positionality is practitioner research, autobiography narrative research or self-study (Herr & Anderson, 2005, p. 31).

My application of action research in the development of the conceptual framework is therefore aligned with practitioner researcher, aiming at improving my teaching practice as well as to gain insight into the studied phenomena that will enable the development of theory.

### Action Research's fit with a Critical Realist Stance

In action research, the focus shifts from a spectator researcher towards a practitioner researcher in that the researcher is researching his/her own practice (Whitehead & McNiff, 2006). Action research is therefore

strongly linked to the research context and is aimed at creating contextually relevant theories that could assist in dealing with practical issues. The theory developed in action research would therefore be an interpretation of the 'real' as indicated in my ontological stance. In addition, McNiff (2002) stated that action researchers "try to find ways of accommodating multiple values perspectives." (p. 17). This is consistent with the critical realist view that there are multiple interpretations of reality and that there is no single truth.

McNiff (2002) further stated that "Action researchers see knowledge as something they do, a living process. People can generate their own knowledge from their experience of living and learning." (p. 18). Reason and Bradbury (2008) concurred with McNiff and further illustrated that the characteristics of action research are grounded in a participatory worldview. This view resonates strongly with a constructivist view of knowledge creation.

Action research is therefore perceived to be a compatible methodology given my ontological stance, given that action research could potentially deal with the epistemic fallacy to some extent. Figure 5 below illustrates an integration of action research and critical realism.

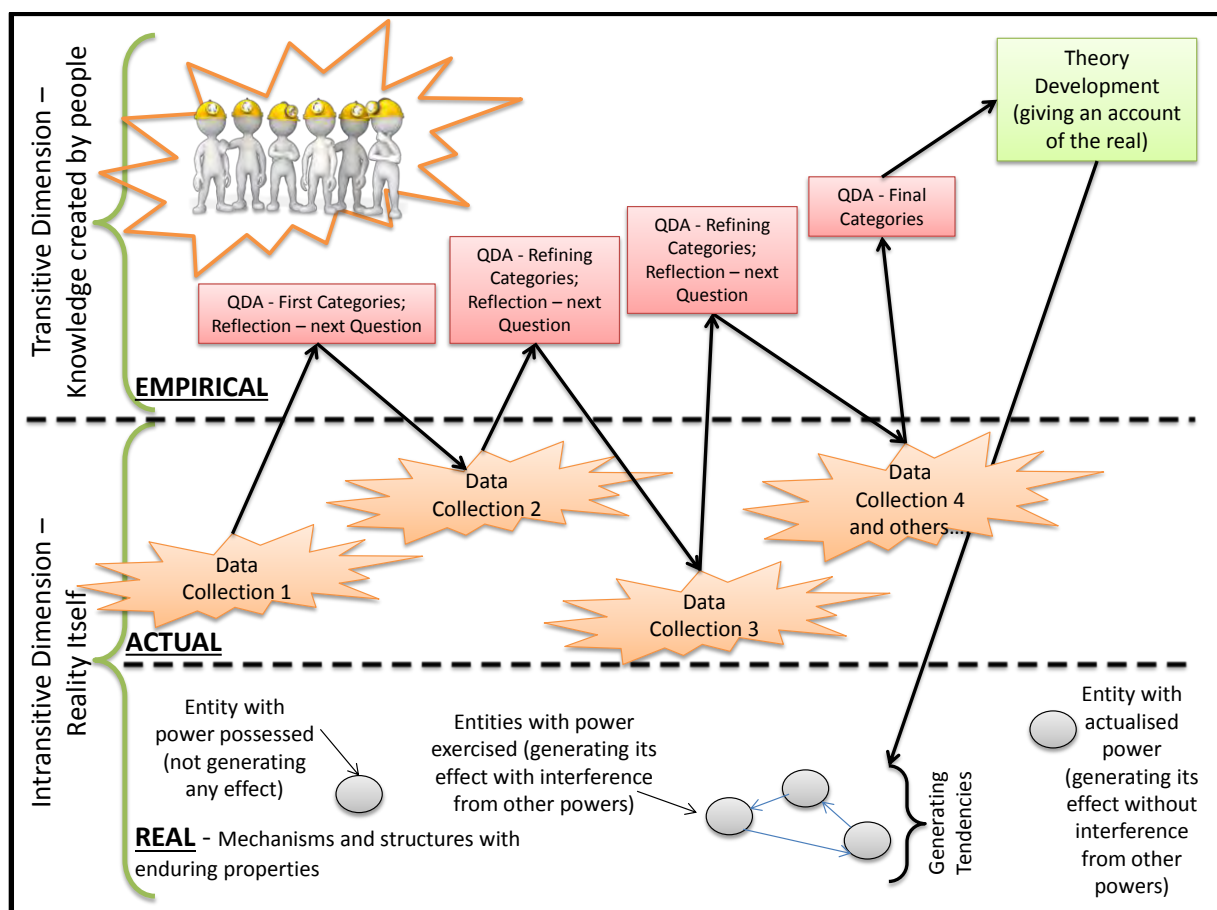


FIGURE 5. INTEGRATION OF ACTION RESEARCH AND CRITICAL REALISM

In Figure 5 above, the stratified nature of science is depicted through the identification of the real, actual and empirical. The cyclical nature of action research is illustrated through the consecutive cycles of data gathering in the actual, followed by analysis in the empirical. These are concluded with the identification of the final categories and theory development. An Action Research Theory aims to give an account of the 'real' as a depiction of the causal mechanism that generates the observed phenomena.

In the next section, an explanation will be provided of the research participants who took part in this action research study aimed at developing the conceptual framework.

### Research Participants

The action research cycles were conducted in my practice and involved the management development programmes that I was directly responsible for as academic co-ordinator and systems thinking lecturer. The development of the conceptual framework took place over a period of two years and involved six postgraduate diploma programmes and two certificate level programmes. The total number of postgraduate students who participated in this process was between 150 and 180 and the certificate students were between 50 and 60. The learners on these programmes were involved as research participants on different research cycles.

These students were from various backgrounds and included both public sector and private sector participants. Some of the programmes were company specific programmes (2) and some were sector specific programmes (5), whilst the other programmes were structured around a theme and included students from various sectors and organisations.

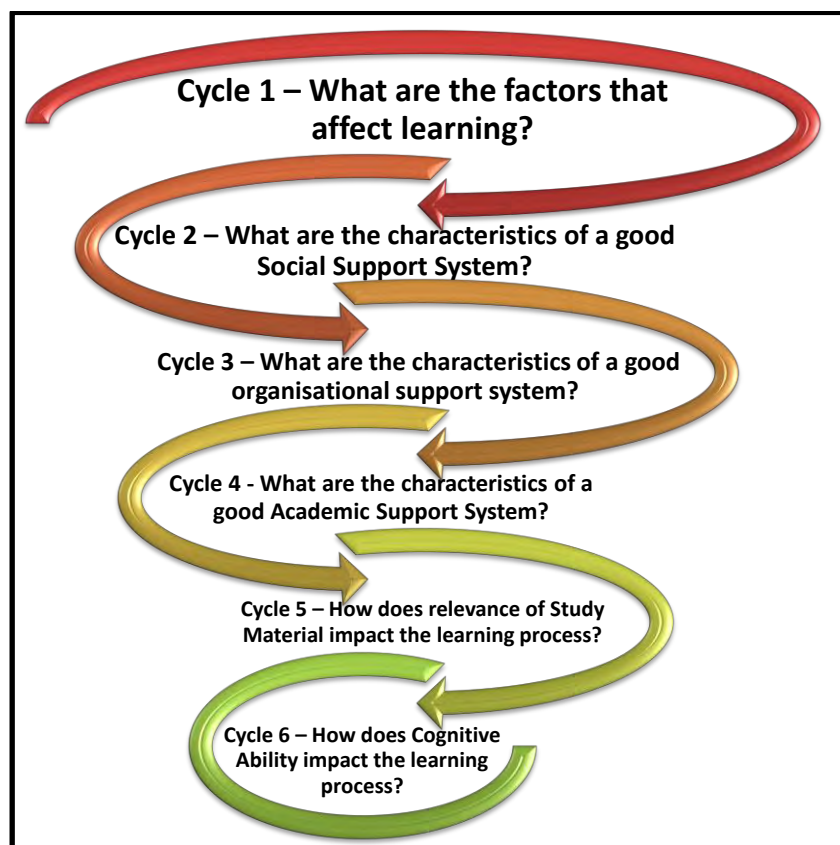
The postgraduate students who participated included both degreed and non-degreed students, but these students all had at least a minimum of 5 years' experience as managers. The certificate students had no or limited managerial experience and mostly held matric certificates only.

In the next section the research methods and approach for each action research 'spiral' will be explained.

### The Process of Action Research

The first research question (area of interest) was very broad and focused on identifying all factors that affect the learning process. This exploratory question facilitated and provided focus to the first research cycle. Analysing the first set of data and assessing the results led to the identification of the second research question. The emergence of the second research question provided further direction and more depth to the research process. After each research cycle, the results were analysed and based on the results and identified gaps, the next research question was identified that gave direction to the next research cycle. These final completed research cycles, with the focus question of each cycle as it emerged, are depicted in Figure 6 on the next page.





**FIGURE 6. ACTION RESEARCH CYCLES**

In Figure 6, the cyclical nature of the action research process is depicted, with specific focus on the research questions that focused my action research process. A further detailed description of the Action Research process for every cycle, as well as the results for each cycle, are included in Appendix A.

In the next section, the conceptual framework that was developed as a result of the action research pilot study will be presented.

#### **1.4.2 EXPLANATION OF THE CONCEPTUAL FRAMEWORK**

The key concept that guided my action research study was ‘engagement of the learning process’. My goal was to determine what the key factors are that affect a student’s ability to engage the learning process. The factors that affect engagement of the learning process were captured in a causal model that will be explained in detail, with reference to each variable and relationship by means of red numbers on the diagrams. This model will be built up in stages to assist the reader in following the process.

Some of the factors that affect engagement of the learning process relate to the student’s ability to manage him/herself. These factors are depicted in Figure 7 on the next page.

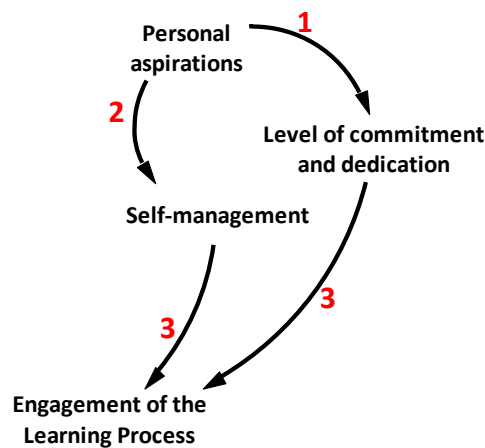


FIGURE 7. FACTORS AFFECTING THE LEARNING PROCESS – STEP 1

In Figure 7, **personal aspirations** include the student's desire to obtain an academic qualification in order to further his/her career. This element was identified as a key factor, given that many students on the programmes only hold a matric certificate and are not degreed. Personal aspiration is also reflected in the following quote from a student:

*"I figured that if I strive to complete the IMDP programme, I will advance in the company and have more financial means to take care of my family."*

A student with high personal aspirations to succeed will drive him/herself and this would increase their level of **self-management (2)**. Self-management includes the student's ability to manage his/her personal well-being, time management and implementation of the study plan. Self-management was found to be essentially the ability to manage work, study and family commitments whilst maintaining a high level of personal well-being. Students were found to identify and develop coping mechanism that assisted them in dealing with the additional stress brought on by their studies. One student stated:

*"Furthermore, writing all my thoughts and emotions on the reflective papers assisted me with 'loading off'. It helped me to cope with the stress I had at that given time and enabled me to move on."*

The combination of self-management and **commitment and dedication (3)** drive the student's level of **engagement of the learning process**. The ability to balance work, study and family commitments is imperative for success and is illustrated in the following quote from a student:

*"Embarking on the IMDP 6 program has impacted, positively and negatively, on all aspects of my life: social, personal and work life etc. There is much demand on me to do the academic work; continue with my work as a manager creating value for my company, keep my family happy and also meet some social demand."*

The next step in the conceptual framework is depicted in Figure 8 on the next page.

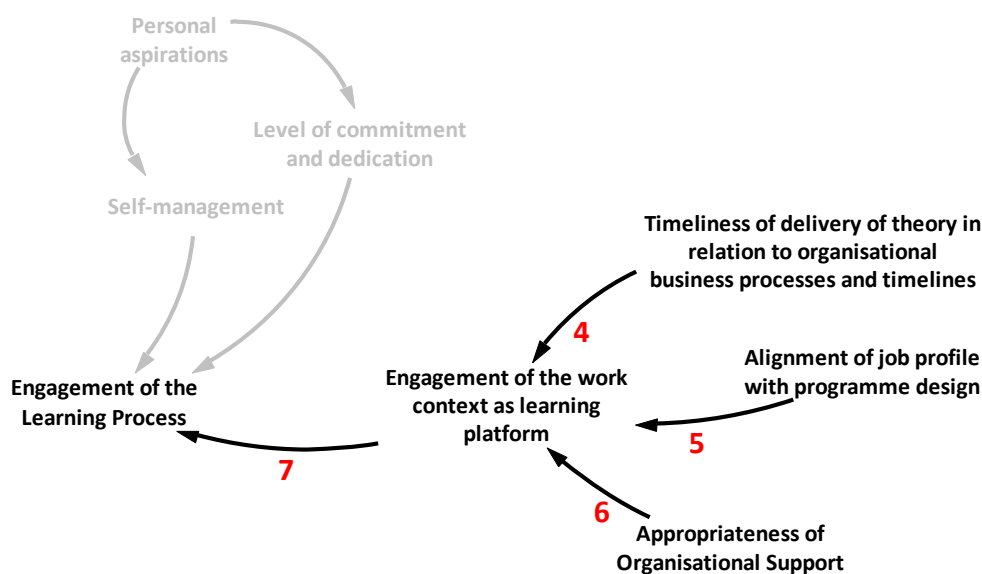


FIGURE 8. FACTORS AFFECTING THE LEARNING PROCESS – STEP 2

In Figure 8, it is illustrated that the **timeliness of delivery of theory in relation to organisational business processes and timelines** was found to be a key factor that affects a student's ability to judge relevance, as well as discover the usefulness of theory. For one student this was evident when the inter-module assignments focused on financial management and it happened that the organisation was in their annual budgeting cycle as well. The action research learning assignment greatly assisted the student in her work activities as illustrated in her statement below.

*"This week we had our final review of the new 3-year plan for the company. My budget was approved immediately. My manager came to me and told me that he can really see that I am applying financial and budget principles and insisted that I guide junior manager to get to grips with the budgeting process. The more I use budget and costing principles the more accurate my results becomes and the more confident I get with using relevant tools as covered in Module 2."*

The delivery of learning material in conjunction with organisational timeliness increases the student's ability to **engage the work context as a learning platform (4)** as stated by a student:

*"I do realise that I can use the environment I work in to learn from rather to be a "victim of circumstances"*

Another factor that affects a student's ability to engage the work context as a learning platform is the student's current **job profile (5)**. It was found that students who are not at least in a supervisory position, found it more difficult to relate the theory to context and implement action research learning assignments. Another dimension that is part of the category job profile is the amount of work experience that a student has. It could therefore be inferred that the job profile (that includes work experience) increases the engagement of the work context as learning platform. (5) The last concept and relationship identified in this step of the model

is the **appropriateness of organisational support** that increases the engagement of the work context as learning platform (6). Appropriateness of organisation support was identified as one of the three types of support networks that enables students to engage their learning process optimally. Organisational support has many dimensions, some of which include:

- Emotional support;
- Logistical support (computers, office space, printing and internet, and others)
- Financial Support (to pay for study fees, travel and accommodation, and other)
- Administrative support; and
- Learning support in the identification of Action Research learning Projects and discussions

One of the most important factors associated with organisational support is the support that a student receives from his/her line manager. The essence of this statement is reflected in the following student quotation:

*“During the period i (sic) got a significant support from my exploration superintendent who joined the company end of March this year. He had given me support on checking my assignment and giving me remarks the validity of the job and signed on my submission as line manager and commented on things that I have ability to change and this that i (sic) can’t change i.e. above my ability was addressed to geology manager.”*

In some instances, it was found that the lack of support from the student’s organisation could be a significant hurdle for the learning process. The ability of the student to use their work context as a learning platform increases the engagement of the learning process (7) in that the student has a testing platform for the theories taught.

The next concepts and relationships of the causal model are depicted in Figure 9 on the next page.



personal growth and created more value for their organisations. The following quote depicts how the organisation recognised personal development and growth in a student.

*"I was afforded an opportunity to share the role and intentions of my department with Exco at their weekly meeting, last week. The invitation was 'spur of the moment' and so left no time for planning of any sort. I walked away with pride because I felt confident enough to sit at an impromptu meeting and answer every question aimed at me. The feedback given to me after the meeting was extremely positive and I credit my success to the knowledge gained not only about myself, but about business, to PGDIP. The feeling of empowerment is a strong one, and immediately boosted my self-image."*

The following quote indicates how a student recognises their own personal development and how this in turn increases the student's commitment and dedication to their learning programme (13).

*"I've noticed that people around me are a lot more open to speaking to me and I feel this is because of how well I know myself now. My communication is better since starting PGDip and that is why I feel I need to pull my weight on this programme."*

Evidence of personal development and value addition increases the organisation's willingness to provide support to the student as it is evident that the programme is beneficial for the student's development (14) which will ultimately increase the organisation's management capacity.

The next variables and relationships in the causal model are depicted in Figure 10 on the next page.

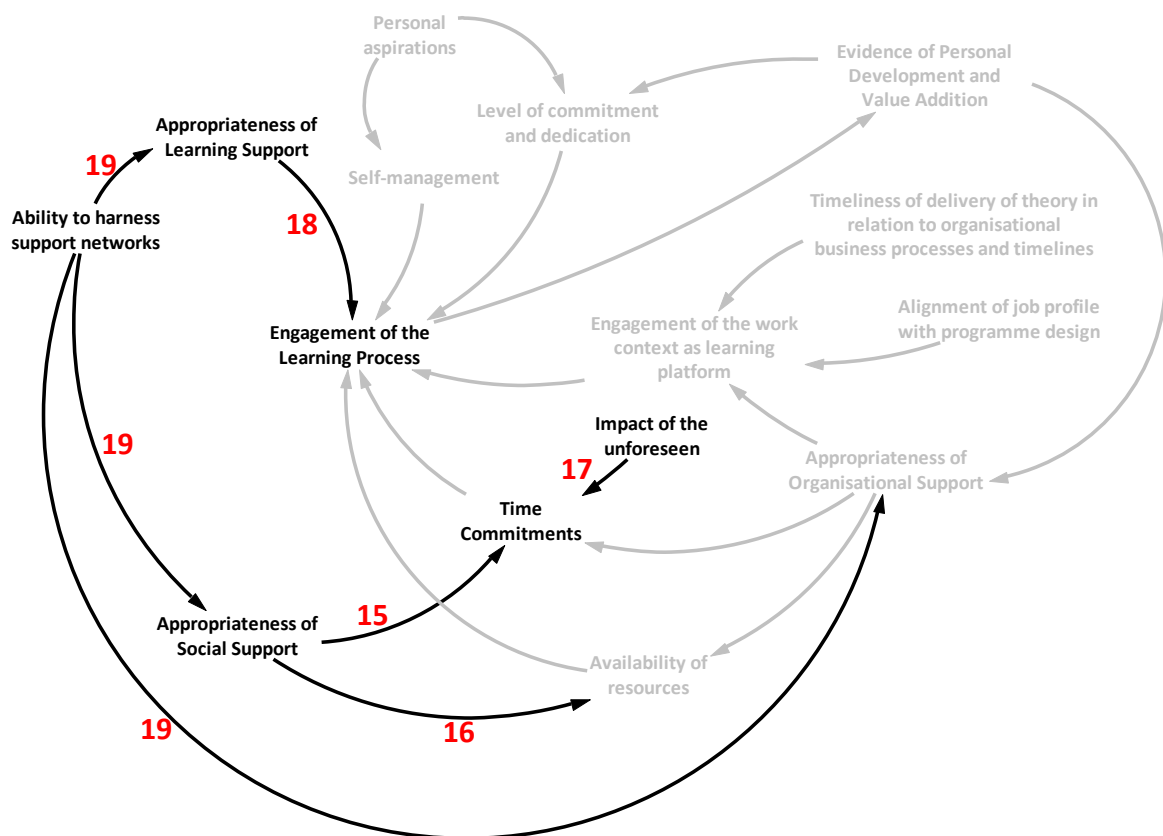


FIGURE 10. FACTORS AFFECTING THE LEARNING PROCESS – STEP 4

The second type of support network that was identified is a **social support network**. Most students indicated the importance of their family, close relatives and friends in obtaining support for their studies. Social support includes amongst others the following:

- Relief from home duties;
- Emotional support;
- A soundboard for learning;
- Relief from social commitments; and
- Encouragement to study

The most important relationships associated with social support are the decrease in **time commitments (15)** and **access to resources (16)**, of which the first was the most significant. The following two quotes aptly illustrate this position.

*“During the entire intermodular period I got several support from my family i.e. wife who always was preparing meals on time and making sure during my studies i ‘m not interrupted by my little son as he used to be before i started this course.”*

*“On religious side I got support on reducing my responsibility at church and instead I was made a normal believer and not among leaders.”*

I have thus far established that organisational and social support could assist a student in decreasing identified time commitments in order to make time available to engage the learning process. It should however be pointed out that there are always **unforeseen circumstances** (17) that impact on the students' time commitments. This was evident in many observations and written reflections from students in which incidents like deaths in family, unexpected work commitments or personal illness was recorded as impacting on students' time commitments that decreased the ability to engage the learning process.

The third type of support network that was identified is **learning support**. It was established that appropriateness of learning support could increase engagement of the learning process (18). A learning support network could consist of:

- Contact with key lecturers;
- Interactions with fellow students;
- Interaction with past students in your own organisation; and
- Discussions with family members or friends regarding your studies.

Learning support is aimed at obtaining information to assist in completing assignments or to gain different perspectives that could provide an alternative solution to problems. Learning support in addition could come from a supervisor who could assist in relating theory to practice.

Support from the Academic Institution is part of learning support and paramount to the successful engagement of the learning process. A critical aspect that affects the learning process directly is the timeous response to questions that may hamper a student's progress. This is illustrated as follows:

*“During the inter module period is necessary to have regular feedback from instructor to all assignment collected so as I can make significant improvement on the assignment.”*

Good support networks (organisational, social and academic) are however only as good as the **student's ability to harness those networks** in order to engage the learning process (19). It was determined that a key aspect related to the student's ability to harness support is how the student can manage the support networks. A very effective quotation from a student's reflection that illustrates this point is the following:

*“In closure, I wish to reiterate that my family is the most important support network I have followed closely by the organizational support. I think that it was imperative that I called a family meeting and made my family part of the decision regarding me studying or not. Should I not have done this, I would not have had the same support which I am receiving now. Regarding my second most important network namely the organization – it was imperative for me and my manager to get to an understanding regarding my availability (sic) whilst I am*





*"I attribute my success to the knowledge gained on PGDip, modules one and two, which has enabled me to think and act on a more strategic level.... I now find myself being able to share without arrogance and with mindfulness, resulting in my ability to influence others, improving. This has vastly improved communication with all that I engage with."*

It is only through engagement of the learning process and 'wrestling' with the theories, that a student is able to determine how the theories could assist him/her in their work context. Through engagement of the learning process, the student will discover the usefulness of study material and this will in turn assist the student to deal with issues in the workplace. In a reflective writing, one of the students stated the following:

*"What still fascinates me about my PGDip experience is that most of my learning is done on my own outside of the GSB. I am so much more aware of the learning that is taking place and that is why I can take full advantage of it now. Ignorance is definitely NOT bliss."*

The above quote illustrates that the student acknowledges that the learning experience is about engagement of the study material in the work context. Another student acknowledges that some students will go through the programme without significant personal changes, whilst those who engage the learning process experience significant growth. This is evident in the following quote:

*"Im amused that some people take so much out of this programme and others just see PGDip as an extra worry and more work. The more I reflect about the way my life has changed since starting the course the more Im thankful for the opportunity."*

The conceptual framework provided detailed insight into the factors that affect the learning process. These were fully explained in the section above. The conceptual framework enabled me to understand the problem context better and to start getting focus in developing the research question. In the next section, I will explain how the research question was identified from an analysis of the conceptual framework.

#### **1.4.3 DEVELOPMENT OF THE RESEARCH QUESTION FOR THIS STUDY**

According to Alvesson and Sandberg (2011, p. 26) researchers establish opportunities for making a contribution to existing literature through either 'structuring intertextual coherence' or 'problematizing'. The process of structuring intertextual coherence is aimed at identifying a 'gap' in the literature that is used to formulate the research question. In the process of problematizing a body of knowledge, the researcher aims at identifying an area in the literature that is deficient in some form. This area could open opportunities for advancing knowledge by further exploring this area to provide a different perspective on a topic. According to Alvesson and Sandberg (2011, p. 40), problematization essentially focuses on exploring "what may be fundamentally 'wrong' with the assumptions underlying existing studies, even those underlying one's own favourite theories, and tries to challenge them as a key ingredient in constructing research questions."

The nature of my research problem lends itself towards a problematizing process for the development of the research question. This is because one of the key assumptions of the humanist school of thought on adult learning (within which transformational learning resides), is that human beings can control their own destiny. My pilot study however indicated that there are environmental factors that may override the student's ability to manage his/her learning process thereby experiencing a transformational learning process. My research question was therefore focused on exploring this basic 'in-house assumption' of the humanist school of thought (Alvesson & Sandberg, 2011, p. 254). . A review of the conceptual framework indicates that there are three key elements in this model. These elements are marked in green, blue and red outline in Figure 12 below.

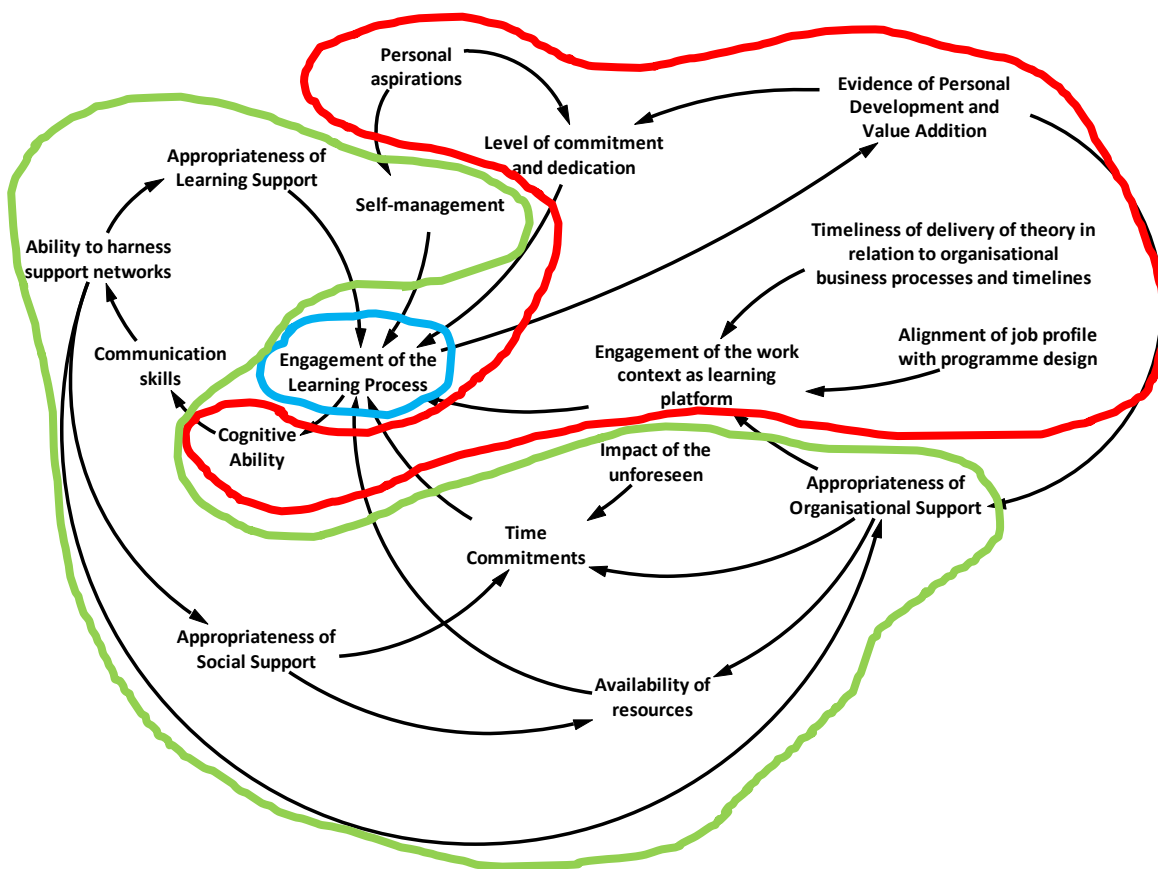


FIGURE 12. FACTORS AFFECTING THE LEARNING PROCESS – MAIN SYSTEMS

The elements outlined in green have a strong correlation with McClusky's Theory of Margin (Merriam, Caffarella, & Baumgartner, 2007). It illustrates how the student has to manage pressure on his/her time from various sources whilst still being able to engage the learning process fully. According to McClusky, it is the balance required between the amount of energy needed and that available. He explained this as follows:

"This balance is conceptualized as a ratio between the 'load' (L) of life, which dissipates energy, and the 'power' (P) of life, which allows one to deal with the load. 'Margin of life' is the ratio of load to power. More power means a greater margin to participate in learning." (Merriam, Caffarella, & Baumgartner, 2007, p. 93).

An adult learner can either increase power or reduce load to obtain a suitable margin of life (Merriam, Caffarella, & Baumgartner, 2007). In the conceptual model that I presented, it could be inferred that the students who manage to engage the learning process fully, have the ability to create this balance by increasing power through the use of support networks as well as reducing load by freeing up time for their studies. McClusky stated that "To engage in learning, then, an adult must have some margin of power' available for application to the processes which the learning situation requires" (McClusky, 1970, p. 84).

This would imply that the student must be able to manage him/herself and the daily pressure that may affect his/her ability to engage the learning process. I therefore interpreted the elements circled in green as ***ability to manage own learning***.

The second key element is focused on the individual's ***learning readiness***. Learning readiness includes the suitability of the student's current job profile for learning; in order to engage the work context as learning platform. It also includes the factors that motivate the student to learn, such as personal aspirations, dedication and commitment. Another critical component of learning readiness is the student's cognitive abilities. The elements that represent learning readiness are indicated in red outline in Figure 12 on the previous page.

These two key elements are both focused on enabling the student to ***engage the learning process***. The student requires a specific level of learning readiness as well as the ability to manage his/her own learning in order to fully engage the learning process.

Given the main focus areas identified in the theoretical framework, the research question for this study was formulated as follows:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

This research question assisted me in focusing my research efforts and develop a plausible theory that explains the phenomena of interest. In the next section, I will give attention to the justification of this study.

## 1.5 JUSTIFICATION FOR THE RESEARCH

The justification of the research will focus on my research goals in terms of three dimensions - personal, practical and intellectual (Maxwell, 2005).

The development of the conceptual framework of this study enabled me to identify factors that affect the learning process. This knowledge positions me to improve the learning process and thereby improve my own teaching practice. This would lead to a personal benefit for me, but also to the students engaging on these programmes.

Since commencement of this training and development initiative, AGA has invested a considerable amount into the development of their managers. Prior to the commencement of this study, no formal attempt was made to define how the programmes manage to create more effective managers for AGA. This knowledge could indicate whether AGA's investment in their human resource development is made on a sound management development programme. Of tremendous practical value for AGA would be to gain insight into the usefulness of the learning process to increase the effectiveness of the management cadre.

What is however still not clear, is how the factors that affect the learning process created the conceptual change and improved the effectiveness of the students' management practice. Even though there are many learning theories that explain how adult learning takes place (Merriam, Caffarella, & Baumgartner, 2007), there seems to be a limitation in empirical studies explaining the learning dynamics of an accredited academic programme designed on an action learning process. The main intellectual goal of this study is therefore to develop a learning theory that will explain the causal mechanism that creates increased management effectiveness in organisations. This will contribute to the literature by providing an empirical study in this domain.

Given the above goals identified for the study, it was felt that there is suitable justification for the study. In the next section, an overview of the methodology of the study will be provided.

## 1.6 METHODOLOGY

Given context of this study and my ontological stance, grounded theory was identified as a suitable methodology that will enable me to develop an interpretation of the causal mechanism that created the observed phenomenon. I acknowledge that this interpretation is only one possible interpretation and that there could be other interpretations of the same phenomena. A justification for the validity of the theory presented in this paper will however be provided in order to provide a sense of credibility in relation to the theory developed.

I adopted Charmaz's (2006) approach towards the interpretation of the grounded theory process, due to her critical realist stance. Charmaz's approach was supplemented by Corbin and Strauss' (2008) work that provided more detailed descriptions of data analysis techniques. Throughout the application of grounded theory, a critical realist view was taken of the research process. Grounded theory's fit with a critical realist stance will be explained in chapter 2.

### 1.6.1 *AN INTRODUCTION TO GROUNDED THEORY*

Barney Glaser and Anselm Strauss (1967, p. 1) developed grounded theory as a qualitative research methodology in the 1960's as a process that facilitates "the discovery of theory from data". Grounded theory's epistemology was derived from a two-step revolution that firstly involved interactionism and secondly pragmatism (Corbin & Strauss, 2008).

Symbolic interactionism refers to a particular manner in which people interact with each other. According to Blumer (Corbin & Strauss, 2008), human beings interpret each other's actions and a person's response is therefore in relation to his/her interpretation of that other person's actions, but not directly in relation to the other person's actions. There seems to be a strong correlation between symbolic interactionism and Bhaskar's (2008) stratified ontology. It could be inferred that in human relations, the one person's actions take place in the real, but are interpreted in the empirical by the other person. The response given to the first person's actions is then again given in the real. A key challenge with this aspect is about the accuracy of interpretation of others' actions. Pragmatism in addition focuses on the relationship between thought and the act and concludes that "knowledge is created through action and interaction" (Corbin & Strauss, 2008, p. 2).

Grounded theory therefore focuses on learning about the world and provides a method for developing theories that assist us in interpreting the real world. Grounded theory methods are therefore aimed at collecting and analysing data in the empirical and actual to construct theories that are 'grounded' in the research context itself. Charmaz (2006, p. 2) states that grounded theory methods are guidelines that "offer a set of general principles and heuristic devices rather than formulaic rules... . Thus, data form the foundation of our theory and our analysis of these data generates the concepts we construct. "

Grounded theorists therefore start the research process with data collection. Data is collected through observations, interactions with research participants or material. The early data is then sorted and coded, using qualitative coding. During coding, the researcher emphasises what is observed in the studied phenomena. Subsequent coding focuses on making comparisons between earlier codes and new data until the researcher starts to get an analytical grasp of what is emerging from the data. The coding process eventually leads to the identification of categories that are used to develop the grounded theory.

The process of developing categories is a process of abstraction towards the development of theory. Charmaz (2006, pp. 3-4) indicates that "... we build levels of abstraction directly from the data and, subsequently gather additional data to check and refine our emerging analytic categories. Our work culminates in a 'grounded theory', or an abstract theoretical understanding of the studied experience."

The theory development process in grounded theory aims at identifying relationships between the categories in order to explain the dynamics that created the studied phenomena. These often also include an explanation of the prevailing conditions that lead to the phenomena (Charmaz, 2006).

The process of grounded theory will be explained in more detail in chapter 2. In the next section, the delimitations of scope and key assumptions of this study will be presented.

## 1.7 DELIMITATIONS OF SCOPE AND KEY ASSUMPTIONS

It is required to identify the nature of the research in terms of the boundaries set for the scope of the research. I however acknowledged that, due to the fact that social systems are open and not closed (Sayer,

2000), it is not completely possible to draw clear and concise boundaries around the scope of this study. There were however very specific boundary judgements that I made in terms of a number of criteria that will be discussed in this section. The first boundary was in relation to the organisation and research participants.

### **1.7.1 RESEARCH ORGANISATION AND PARTICIPANTS**

The concept of social membership was considered regarding the organisation and research participants. (Mingers, 2010). The conceptual framework for this study was developed by taking into consideration all the management development programmes that I was responsible for. The research participants, involved in the research process aimed at answering the research question, were however exclusively members of AGA at the time of the study. In this regard, there were two categories of membership. The one being alumni who successfully completed the programme and the other category were people who either worked with the co-ordination of the programmes in AGA or were supervisors of students who completed the programmes.

I acknowledge that the culture of the organisation as well as the general attitude of managers within the organisation affect engagement of the learning process. Within AGA, the management development programme was stipulated as a promotion criterion. This immediately changes the student's attitude and willingness to complete the programme. I therefore acknowledge that the theory developed in this study, may not be applicable to organisations that do not have the same level of commitment towards a similar management development initiative.

Assumption 1: A key assumption that I made in this regard, was that students selected to participate on the programme had an additional motivation for learning in the form of career progression.

### **1.7.2 THE SOCIAL SYSTEM**

A specific scope limitation regarding the social system was applied at two levels. The first level was to look at AGA as one entity and not to focus on the difference in the learning process of individuals from different countries.

Assumption 2: A key assumption that I made in this regard, was that all the AGA business units in the various countries had a similar attitude towards the management development programme.

The second level of viewing the social system boundary was the fact that this study focused on understanding the learning process from an organisation and individual perspective, but not from a personal perspective. This implies that the research focused on the students' personal learning in the context of their organisation, but not in the context of their personal/private lives.

Assumption 3: A key assumption that I made relating to the social system was therefore that students are able to arrange their personal lives to accommodate the additional demand placed on them by this academic programme.

### 1.7.3 *PROCESS BOUNDARIES*

This type of boundary relates to the scope of the learning process and what parts of the learning process were excluded in this study. For the purpose of this study, the focus was exclusively on the learning itself, as well as where learning takes place (within the organisation). The research problem did not focus on the design and facilitation of the learning process.

*Assumption 4:* An assumption that I made in this regard was therefore that the learning process is sufficiently developed and facilitated to achieve the purpose of the management development programme.

The scope of this study was therefore defined to one specific organisation and one specific type of management development initiative. The final theory of this thesis will be evaluated for transferability in relation to this limitation in scope. In the next section, I will provide an outline of the thesis as an overview of the complete thesis.

## 1.8 OUTLINE OF THE THESIS

This thesis has six chapters: introduction, methodology, research results, literature review, theory building and conclusions. This atypical format can be ascribed to the role that grounded theory plays in the research process. Traditionally the literature review is presented early in the thesis, before the methodology and research results are presented, as the literature review is aimed at identifying the body of knowledge and the research gap that the study aims at addressing (Perry, 1995). For this study, the use of grounded theory however changed the manner in which I approached literature. Locke states that the literature is sometimes integrated into the findings section, or in some cases, it is only presented in the discussion and implications section of the paper (Locke, 2001). In this paper, the literature review will only be presented once the research findings were presented.

The following section will provide a brief outline of each chapter, omitting chapter 1.

In **Chapter 2 (Methodology)** of the thesis, I aim at giving validity to the research process through the explanation of the research framework adopted for this study. I will describe the research framework in terms of five dimensions, namely ontology, epistemology, methodology, methods and sources. The explanation of the research framework is followed by a detailed explanation of the methodological implications of a critical realist stance towards the research process. This explanation will build on the ontological discussion already presented in this chapter. At the conclusion of the ontological discussion, I will present the epistemological stance of this study, in relation to my ontology. This is followed by an in-depth discussion of the research methodology, how it fits with a critical realist stance, as well as practical considerations to be considered when using grounded theory. I will give attention to the research process, data collection as well as data analysis techniques. Where applicable, I will discuss challenges that I experienced in the research process. Chapter



two concludes with a brief discussion on the view of a theoretical framework in relation to this study as well as highlighting how ethical considerations were addressed.

**Chapter 3 (Research Results)** will focus on providing the empirical findings resulting from the grounded theory process. The chapter will start with a description of the research participants in this study followed by the presentation of the findings. I will do this by focusing on each step in the research process and presenting and discussing relevant findings. I will focus on the data collection and initial coding processes and highlight the need for the use of qualitative data analysis software in order to analyse the data collected. This is followed by a discussion of the results emanating from the theoretical sampling and concept formulation process. This chapter concludes with a summary of the empirical research findings of this study, thereby illustrating how I answered the research question.

**Chapter 4 (Literature Review)** is aimed at moving the research results from the empirical to the theoretical through a review of the relevant body of knowledge and thereby positioning the research results within the relevant body of knowledge. This chapter commences with an explanation of my approach towards the literature review that may differ from the traditional approach. I will present the literature review on three levels. The first level is the parent discipline that was identified as experiential learning. Experiential learning is the body of knowledge within which this study is located. The next level will focus on a review of the key concepts contained in the research problem and question in relation to experiential learning. To this effect, the key concepts referred to are learning readiness, ability to manage own learning and engagement of the learning process. This is followed by a discussion of the key variables identified in this study that are aimed at answering the research question.

**Chapter 5 (Theory Building)** is the point at which the theoretical concepts identified in this study will be advanced towards a theory of learning. This will be done through the application of Beer's (1966) process of scientific analogizing. I will present the theory building process in two stages. During the first stage, Beer's process is applied to three learning theories in order to identify a seed theory that I can use to develop my theory from. This process identified Kolb's experiential learning theory as an appropriate seed theory for the development of my own theory. The second stage of the theory building process focuses on the development of my own theory, by using the seed theory and identified gaps as the basis. This chapter will conclude with and explanation of the developed theory.

**Chapter 6 (Conclusion)** aims at concretising the discussions in the previous chapters by firstly providing a brief summary of each preceding chapter in this thesis. This summary is followed by conclusions made about the research question and the theoretical contributions made by this study. The next section in this chapter will reflect on the usefulness of the chosen methodology to address the research problem. In addition, this chapter will discuss the implications for theory emanating from this study, as well as the implications for policy and practice. The chapter will conclude with a discussion on the limitations of this study, as well as suggested further research.

## 1.9 CONCLUSION

This chapter laid the foundation for the rest of the thesis. It provided the background for the research which focuses on a management development initiative partnered between AGA and the UCT GSB. After explaining the background and context of this study, I explained my worldview with reference to critical realism and a constructivist perspective of knowledge creation. The ontological perspective stressed the fact that knowledge created in the social world is an interpretation of reality and that it is not reality. I presented a conceptual framework that was developed through a series of action research cycles. This conceptual framework provided the framework for this study and assisted in formulating the key research question, namely:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

The conceptual framework was followed by the justification for this study that is aimed at defining the mechanism that increases the effectiveness of managers for AGA in the context of their organisation. It also identified the need to develop a learning theory that could explain how learning readiness and engagement of the learning process increase the effectiveness of management practice.

Grounded theory was presented as a suitable methodology to develop this theory and provide an explanation of the causal mechanisms in the real that created the phenomenon of interest. This chapter was concluded with a discussion on the delimitations of scope and key assumptions, as well as an outline of the remainder of this thesis.

In the next chapter, the methodology will be presented, with a focus on the five dimensions of the research framework, namely, ontology, epistemology, methodology, methods and sources.

## 2 METHODOLOGY

The previous chapter laid the foundation for this thesis. It did this by providing the background and context of this study that is focused on a management development initiative, partnered between AGA and the UCT GSB. Critical realism and constructivism were presented as key elements of my worldview. The conceptual framework was explained in detail and the resultant research question was identified. Grounded theory was presented as a suitable methodology and I provided justification for the study.

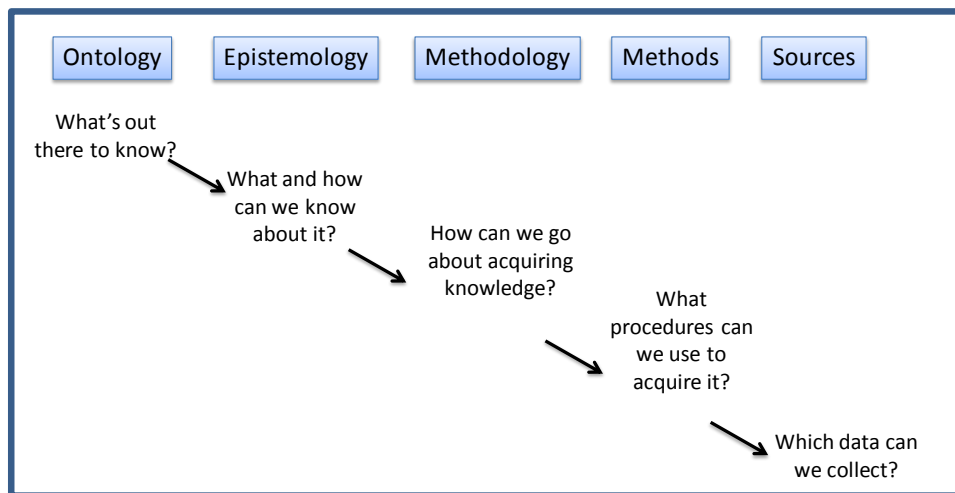
In this chapter, the research methodology for this study will be presented by firstly discussing the limitations that the social world places on the research process, thereby motivating the need for a suitable methodology that could provide an explanation of the causal structures that give rise to the studied phenomena. This section will be followed by a discussion of the research process of a critical realist. This chapter will provide an explanation of the building blocks of the research framework for this study and will present the research design and an explanation of the application of the grounded theory process in this study. This chapter will conclude with an overview of ethical considerations in research and how I dealt with ethical issues in this study.

### 2.1 INTRODUCTION

Maxwell (2005) asserted that a clear paradigmatic stance will assist the researcher in making design decisions and provide justification for those decisions. It is therefore prudent to develop a clear research framework that will guide the decisions taken on any research assignment.

Guba and Lincoln (1994) stated that the basic beliefs that inform a research framework are founded on three fundamental questions relating to ontology (the form and nature of the study), epistemology (the basic belief about knowledge) and methodology (the research process). The research framework presented for this study will include these elements.

The first building blocks for my research framework were addressed in chapter one. The ontological discussion illustrated how my view of the world and the nature of the phenomena of interest, will influence my interpretation of how knowledge about the phenomena could be created. This discussion covered both my ontology as well as epistemology. The next focus area for my research framework is therefore the methodology, methods and sources. The building blocks of the research framework as explained above, are depicted in Figure 13 on the next page.



**FIGURE 13. THE INTERRELATIONSHIP BETWEEN THE BUILDING BLOCKS OF RESEARCH (AS ADAPTED BY GRIX FROM HAY 2002 P64) (GRIX, 2002: 180)**

In chapter one I presented critical realism as a useful ontology given my perception of the nature of the world. Critical realists believe that deeper underlying causal mechanisms generate the events that are observed during the knowledge creation process. (Bhaskar, 2008). Danermark et al. similarly asserted that an analysis of causal mechanisms could enable well-informed statements about the phenomenon we are interested in studying (Danermark et al., 2002).

To produce useful knowledge, I therefore need to be able to understand and describe the causal mechanisms that are generating the phenomenon of interest. Being able to explain the causal mechanism that is generating the phenomenon would imply that I am providing my own description of the real world. The research process can therefore be described as the process of establishing the relationship between the real world and my description of the real world as a causal mechanism (Danermark et al., 2002).

The design of my study is therefore a retroductive strategy that will begin in the domain of the actual, followed by the identification of structures and mechanisms that will be used to produce a hypothetical model in the form of a causal mechanism. This hypothetical model will attempt to describe the mechanism in the real that creates effective managers for AGA. In the next section, I will explain what my theory, presented as a causal mechanism, will look like. The research design will explain the process that will facilitate the development of this causal model.

## 2.2 CAUSAL MECHANISMS AS A REPRESENTATION OF THE REAL

Critical Realism claims that there is more to the world than just the observable pattern of events. The reality that realists refer to consists of causal mechanisms that produce observable events. There however seems to be little consensus on a single definition for a causal mechanism. Mahoney (2003) compiled a glossary of definitions of the term and grouped the definitions broadly into five categories that include:

- 'Mechanism as a cause of an outcome'
- 'Mechanism as an intervening process, event, or variable'
- 'Mechanism as an underspecified causal process'
- 'Mechanism as an unobserved entity that generates outcome(s)'

Given the above categories, Elster, as quoted by Hedström (2008), indicates that identifying the cause of an event is not sufficient and that the causal mechanism must also be provided. From a critical realist perspective, a causal mechanism is also more than just the cause of the observable event. (Bhaskar & Hartwig, 2010) I therefore do not consider the first category identified by Mahoney (2003), to be a suitable interpretation for a causal mechanism.

The category that seems to resonate most closely with my critical realist worldview is the last category – 'mechanism as an unobserved entity that generates outcomes'. This category describes both Bhaskar's (2008) and Sayer's (2000) interpretation of a causal mechanism. Sayer (2000) asserts that events occur due to the working of mechanism and its underlying structures. In this regard, Bhaskar and Hartwig (2010, p. 132) also state that, "a cause, as a generative mechanism of a structure, is the mode of operation of that structure." Both these descriptions imply that the mechanism is unobserved and generates the phenomenon of interest.

For the purpose of my study, a causal mechanism therefore is the underlying structure and the process that produces a specific observable event. In the next section, I will expand my explanation of a causal mechanism, by focusing on what the underlying structure consists of and how it operates to produce the observable phenomenon.

### *The Structure of Causal Mechanisms*

Bhaskar (2008) stated that a causal mechanism consists of various entities. Sayer (1992) referred to these as objects. For my study, I will formulate an entity or object as a variable. These variables are in the 'real' and possess powers that make them into what they are and what they can do. Bhaskar (2008) referred to these powers as structures or in some instances, a combination of structures that makes them into what they are. This structure endows the variable with powers to do certain things. In my study, these structures will be defined as the characteristics and properties that each variable possesses.

Not all variables in the real world are however exercising their powers and producing an effect at all times. According to Bhaskar (2008), the powers of a variable could be possessed, actualised or exercised. A variable that possess power, is a variable that has power due to its unique structure in the social context. This power will be present, if the variable becomes active (actualised) or starts interacting with other variables (exercised) or not. A variable with possessed powers does not create an event(s) that is observable in the actual world. A variable with possessed powers therefore is part of the causal mechanism, but is not active in the context

(Bhaskar, 2008). In my study, I was therefore not concerned about identifying variables with possessed powers, as these would not be contributing towards the phenomenon that I observed.

When a variable's power is active (actualised), it is exercised, generating its specific effect in an open system. This would imply that a variable is active, but it is not creating observable events, seeing that it is not interacting with other variables (Brown, Fleetwood, & Roberts, 2001). An actualised power therefore also does not create a mechanism that produces observable phenomena. Critical realists are therefore mostly concerned with exercised powers. A power exercised has been triggered and the variable is generating its effects within a system. Variables with exercised powers interact with other variables. One can however never really know what the outcome of that particular variable will be, due to the interference of other variables. A power that has been triggered is therefore a complex process in that the variable enters into a network of relationships with other variables (Brown et al., 2001). An exercised power is also referred to as generating tendencies (creating observable events). Brown et al. (2001, p. 9) defined a tendency as follows:

"A tendency is a statistical trend, a high relative frequency of a given sub-set of a class of possible events; a counterfactual claim about what would come about under certain closure conditions; a constant conjunction of events that holds with some unspecified regularity; an expression, outcome or result of some phenomenon"

Bhaskar (2008) concluded that these generative mechanisms are nothing other than 'the way of acting of things' and that causal laws should be analysed as their tendencies. It could therefore be concluded that it is the consolidation of structures, powers and relations that generate observable events, not just the mechanism.

In this study, the causal mechanism will therefore consist of variables (with their unique characteristics and properties – the structures). The causal laws that Bhaskar (2008) referred to will be interpreted as the relationships or interaction between the variables identified in the research process. The theory that will explain how the conceptual change that occurred in the managers of AGA, will consist of an explanation of how these variables interacted with each other to produce the observed phenomenon.

The structure of causal mechanisms as explained above, is graphically depicted in Figure 14 on the next page. The diagram depicts these causal mechanisms and their associated observable events in relation to Bhaskar's (2008) three domains of knowledge - the real, actual and empirical.

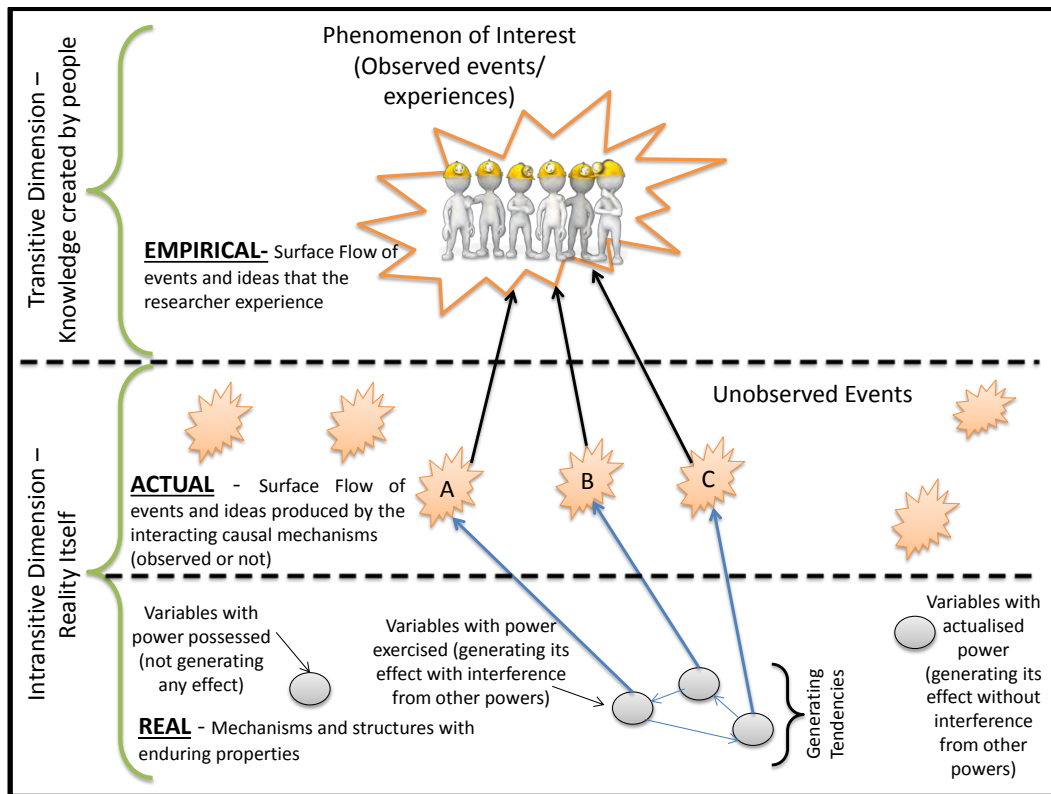


FIGURE 14 THE STRUCTURE OF CAUSAL MECHANISMS

In the diagram above, the three types of variables as explained before (with powers possessed, actualised or exercised) are depicted in the real world. The diagram further illustrates that the variables with powers possessed are generating events and producing the phenomenon of interest that is observed in the empirical world. My research challenge is to develop a methodology that could assist me in identifying the causal mechanism in the real world that is creating the phenomenon of interest.

### How can I identify the Causal Mechanism at Work?

Whether the powers inherent in a causal mechanism are exercised or not, will depend on several factors or conditions. A causal mechanism could exist, but not be exercised and therefore not produce an observable event (Bhaskar, 2008). In my study, I did however observe a phenomenon of interest and I therefore have to assume that the mode of operation of the underlying mechanism that has exercised powers creates the phenomenon that I observe in the real world. An explanation of the phenomenon of interest will therefore require identification of the underlying causal mechanism to discover how it was activated and under which conditions (Sayer, 2000).

In open systems of the social world, the conditions under which a casual mechanism creates an event could however differ in many aspects. This implies that the same causal power could produce different outcomes, or that different causal mechanisms could produce the same result (Sayer, 2000). This points to the weakness in

the Humean concept of laws, in that it links laws to closed systems where 'a constant conjunction of events occurs'. A key feature of realism is therefore that it rejects the Humean view of regularities in causation (Bhaskar & Hartwig, 2010).

From a critical realist perspective, causation is therefore not understood as a regular succession of events and it is therefore not the number of observations that are of importance. Sayer (2000) contented that "There is more to the world, then, than patterns of events. It has ontological depth: events arise from the workings of mechanisms which derive from the structures of objects, and they take place within geo-historical contexts" (p. 15).

To observe causality in single cases, in-depth studies are therefore descriptive of the causal mechanisms and laws. Maxwell (2004) asserted that qualitative methods can generate credible accounts of causal relationships and processes. To this effect, Maxwell (2004, p. 6) stated that, "the researcher can't directly observe causation, and therefore must depend on inferring causal relationships from measured covariation of variables." Fleetwood and Ackroyd (2005) added that the critical realist has to seek the cause of an event in something other than the observed event itself, but to explore the notion of causation as powers of forces that create these events. The attention is therefore focused away from the events, towards the mechanisms, social structures, powers and relations.

In addition to seeking the underlying causal mechanism that is creating the observable events, the role of context in causal explanation has to be taken into consideration. Realist social research emphasises the context dependence of causal explanations and in this regard Maxwell (2004) stated that "mechanism + context = outcome". The relationship between causal mechanisms and their resultant effects can therefore not be considered as fixed, but rather contingent on the specific context. Sayer (1992) added that the context within which a casual process occurs is to some extent intrinsically involved in the process and cannot be controlled in a manner without misinterpreting the causal mechanism. For the social science, the context within which a specific causal mechanism operates is therefore crucial to the understanding of the mechanism and its resultant outcome.

Given the conclusions above, cognisance is given to the fact that this study is focused on observation in a single case grounded in a specific context. The research methodology therefore has to be grounded in the research context and allow me to abstract the variables that created the phenomenon of interest from this context. In the next section, the research process will be explained, giving consideration to the need to identify the causal mechanism in the real that is generating the phenomena of interest.

## 2.3 RESEARCH DESIGN

Quantitative research methods dominated the research arena in the mid 60's and had a strong positivist stance. The dominant view was centred on a 'unitary method of systematic observation, replicable



experiments, operational definitions of concepts, logically deduced hypotheses, and confirmed evidence - often taken as *the scientific method*'. (Charmaz, 2006, p. 4) These positivist methods assumed that the researcher is unbiased and a passive observer that gathers facts and did not participate in the research context to any degree to generate these facts. This approach assumes an external world separate from the researcher and his/her methods. The positivist approach to research rejected other ways of knowing, such as through interpreting meanings of research participants and therefore separated facts from values. (Charmaz, 2006)

The positivist approach to quantitative research is in addition extremely limited in terms of the type of research problems that it can address. It is particularly limiting in its application in social studies where the meaning of research participants is of utmost importance and relevance to the research problem.

How the phenomenon of interest is produced, is however a challenge for a researcher in the social world. Danermark et al. (2002) indicated that objects in the natural world are produced naturally, but defined socially. This is however not true for the social world. In the social world, the social objects are socially produced and socially defined. In the social world, knowledge is constructed through language and meaning, thus providing an interpretation of the real world and not an exact image of the real world. This would imply that there is an interpretive nature to social science. This prevents me from making statements of the real based on what I observe empirically. This would be falling into the trap of the epistemic fallacy as explained by Bhaskar (2008). The social world therefore limits this research process due to the interpretive nature of the social world.

In this regard, Sayer (2000, p. 17) states that "Critical realism acknowledges that social phenomena are intrinsically meaningful, and hence that meaning is not only externally descriptive of them but constitutive of them". This would imply that the characteristics used to describe the real world, include amongst others, the fact that empirical observations and scientific data are seldom objective and are usually open to interpretation. (Sayer, 2000). Mingers (2010), in a similar vein, intimated that one cannot assume that the same research process is applicable to both the natural and social sciences and that one must accept that the characteristics of the social world place specific limitations on the scientific process.

A central goal for a researcher, from a critical realist perspective, is therefore to develop a plausible theory of the nature of the world that created the phenomenon studied. Due to the differences between the natural and social worlds, critical realists assert that there is a need for a different research approach that does not focus on finding regularities to describe social systems as in the case of natural sciences. In this regard, critical realism offers an alternative to the interpretation of meaning, in that it focuses on necessity and contingency, rather than regularity. The implication for my study is that I cannot claim that the description of the real that produced the phenomenon of interest is an objective regularity; it is rather a contingent description of the studied phenomenon. My theory will therefore explain the tendency of this particular phenomenon to occur, rather than a regular pattern of events. The emphasis will be on description, rather than prediction as in the case of a positivist view. This is also referred to as the theory being an 'inference to the best explanation'.

(Haig, 1995) My theory will therefore be inductively derived from the data and will need to be descriptive of the studied phenomenon. I therefore need to use a research methodology that would enable me to translate the empirical events that I observed into a plausible theory of the real. Maxwell and Mittapalli (2007) concluded that the realist position is very compatible with the manner in which most qualitative researchers think in that it includes the key characteristics of qualitative research. These are considered as being the importance of meaning and the interpretative nature of the researcher's description of the phenomenon, the importance of context, as well as the investigation of processes as well as relationships between variables. A qualitative approach to research in social science was therefore deemed more appropriate for this study.

There are however numerous criticisms against the validity of qualitative studies. Consideration should therefore be given to key validity criteria that may affect this study. This will be addressed in the next section.

### 2.3.1 ADDRESSING VALIDITY IN QUALITATIVE RESEARCH

Validity in qualitative research has long been a contentious issue due to the fact that most qualitative studies cannot consistently produce repeatable results (Maxwell, 1992). Guba and Lincoln (1994) identified credibility, dependability, confirmability and transferability as key criteria for demonstrating trustworthiness in qualitative research. Credibility refers to the probability that credible research findings will be produced. Credibility could be established through either prolonged engagement of the research context, or verification from the research participants that they recognise the findings as being representative of their context. Credibility therefore seems to have two dimensions, a focus on the research process, as well as a focus on the research findings.

Dependability could be established once credibility has been confirmed. Dependability focuses on the research results. Confirmability focuses on the research process and emphasises the requirement that another researcher should be able to follow the research process and produce the same results. The aim is to clearly illustrate the evidence of the process and through processes that lead to the development of the theory. The last criterion, transferability, focuses on the ability of the theory to be applied in another research context. (Guba & Lincoln, 1994)

From a critical realist perspective, the criteria identified above however seem to be problematic. In this regard, Hammersley (as cited in Corbin & Strauss, 2008, p. 298) indicates that qualitative research is valid, if "it represents accurately those features of the phenomena, that it is intended to describe, explain, or theorize". This perspective seems more aligned with a critical realist view in that a critical realist attempts to describe the mechanism in the real world that is producing the phenomenon observed in the empirical world.

Maxwell (1992) also, assuming a realist position, asserts that *understanding* is a more significant criterion for qualitative research, as opposed to validity. From a critical realist perspective, this would imply that the main criteria for validity are based on the relationship between the mechanism (the real world) that is producing the

studied phenomenon and the researcher's account or explanation of the causal mechanism (the empirical world). Maxwell (1992, pp. 284-285) refers to five types of validity namely, 'descriptive validity, interpretive validity, theoretical validity, generalizability, and evaluative validity.' Descriptive validity relates to the accuracy of the descriptions of the researcher when recording and interpreting that data. This form of validity is the first and foremost validity criteria and all other criteria are dependent on this criterion. In my study, I need to give attention to descriptive validity by always remaining close to the data. Interpretive validity in addition, relates to how valid the descriptions are that the researcher provides, based on the data.

I have however previously indicated that there may be multiple interpretations of the mechanism that is producing the phenomenon of interest that could be equally valid. Interpretive validity could be obtained by ensuring that the descriptions provided reflect those of the research participants and are not those of the researcher. The descriptions should therefore include the language and meaning of the participants. (Maxwell, 1992)

During the theory development stage in qualitative research, the researcher in addition provides an abstraction of the phenomenon in terms of its theoretical dimensions. Maxwell (1992) added theoretical validity to this process by stating that theoretical validity refers to the description of the phenomenon's validity as a *theory* of the observed phenomenon. Theoretical validity includes an analysis of both the identified variables, as well as the manner in which the relationships and processes linking these variables to each other explain how the studied phenomenon was created. Maxwell's (1992) generalizability criteria is similar to the transferability criteria of Guba and Lincoln (1994), in that this criteria assesses the theories' ability to explain a similar situation in other contexts. Giving consideration to generalizability is useful in determining the theories' implications for practitioners.

The last validity criteria discussed by Maxwell (1992) is evaluative validity which refers to value judgements made by the researcher when interpreting the data. I am of the opinion that it is not always possible for a researcher to interpret the data value-free. It is however a criterion that must be considered when assessing the validity of the qualitative research.

My approach towards the validity of my theory is similar to the approach taken by Hammersley (1987) and Maxwell (1992), in that the focus of the validity of my theory will be on the fit between my theory and the data, how understandable the theory is, and if it is a plausible account of the mechanism that created the phenomenon studied. To this effect, my theory should also be useful to other practitioners. Maxwell (1992) concludes by stating that validity is therefore 'relative to purposes and circumstances' (p. 283).

The research methodology of my study therefore has to be a methodology that will enable me to identify the causal mechanism that is creating the conceptual change in the management cadre of AGA. The theory that I develop, must be a valid description of the causal mechanism in the real world that produced the phenomenon in the empirical world that also has theoretical validity. The theory should be generalizable and

useful to other practitioners and if possible, should not be influenced by my own value system. In order to identify such a research methodology, I will give closer consideration to the knowledge creation process of a critical realist in the following section.

### 2.3.2 *KNOWLEDGE CREATION PROCESS OF A CRITICAL REALIST*

I have previously stated that critical realists believe that there is a distinction between what is 'real' and what we know. Critical realists therefore aim at providing explanations of the mechanism that generates the observable events in the real world. According to Sayer (1992, p. 107) this implies that the main epistemological process of critical realists is retrodution, which he defines as, a "...mode of inference in which events are explained by postulating (and identifying) mechanisms which are capable of producing them...." It therefore implies that what we know, is an abstraction of the real world that is conceptualised and described as a mechanism that produces observable events. One could therefore infer that critical realists have a constructivist perspective to knowledge creation that is specifically aimed at constructing mechanisms that are descriptive of the real world and produce observable events.

Constructivists believe that the knower 'actively constructs knowledge', in that knowledge cannot be transferred between people, nor can it be passively received (Von Glasersfeld, 1982). This would be falling in the trap of the epistemic fallacy (Bhaskar, 2008). This implies that the 'knower' has to build up his/her own knowledge of a particular phenomenon based on what he/she observes about the 'real world'. The researcher therefore abstracts data from the actual world and conceptualises a theory in the empirical world.

A key challenge of a constructivist approach to knowledge creation is however, that knowledge could not be perceived as a 'picture of reality' and that it has to be acknowledged that the knower's picture of the world would necessarily be incomplete or it may be distorted to some extent (Von Glasersfeld, 1995). This is because knowledge is primarily derived from our experience, which includes sensing, acting and thinking. Von Glasersfeld (1989) states that "If this is the case, we have no way of checking the truth of our knowledge with the world presumed to be lying beyond our experiential interface, because to do this, we would need an access to such a world that does not involve our experiencing it".

In addition, all kinds of experience are by nature subjective, seeing that one could not have access to an objective environment. Von Glasersfeld (1995) stated the following:

"As late as 1977, Skinner reiterated: 'The variables of which human behaviour is a function lie in the environment' (Skinner, 1977, p.1). If one believed in that kind of determinism, there could be no room for theories of mental construction. However, the belief in environmental determinism would make sense only if one had access to an objective environment, so that one could show that a particular piece of that environment causes a particular behaviour. But what a scientist - or indeed any reflective person -

categorizes as his or her environment and then casually relates to observed behaviour, is always a part of that observer's domain of experience and not an independent external world." (p. 15).

We therefore have no way of checking the truth of our knowledge, as it is based on each individual's experience. Von Glasersfeld (1995, p. 1) expressed this dilemma as follows: "...knowledge, no matter how it be defined, is in the heads of persons, and that the thinking subject has no alternative but to construct what he or she knows on the basis of his or her own experience."

Glaser (2002) asserted that Grounded Theory provides a 'conceptual license' to the researcher in that the researcher can use his/her own concepts generated from the data to describe the phenomenon being studied. Glaser (2002) further indicated that grounded theory "... is the generation of emergent conceptualizations into integrated patterns, which are denoted by categories and their properties." Grounded theory could therefore allow the researcher to conceptualise and interpret the research context in order to develop plausible theories of the real world.

Charmaz (2006) in addition indicated that Grounded Theory provides a method for learning about the worlds we study and that it facilitates the development of theories thereof. Charmaz (2006) disagrees with the original approach of Glaser and Strauss (1967) in which they indicated that theory is discovered "as emerging from data separate from the scientific observer". (Charmaz, 2006, p. 10) Charmaz, in this regard, stated that neither data nor theories are discovered, but that researchers are part of the world that they study and therefore construct theories through an interpretative portrayal of the world and not an exact picture thereof. Charmaz's interpretation of Grounded Theory clearly also has a constructivist's point of view.

I have also determined that knowledge creation about the real is an abstraction of the real and for any description of reality to be useful, it therefore must be grounded in the social context within which it manifested (Danermark et al., 2002).

One can therefore conclude that critical realists use a retroductive strategy to identify the mechanism in the real world that is producing the phenomenon of interest and that grounded theory could be a useful methodology to facilitate the conceptualisation of the causal mechanism. The grounded theory process could facilitate the process of identifying the variables and relationships that form part of the causal mechanism that is creating the studied phenomena. The theory building process will then focus on developing plausible theories of how these variables interact to create the underlying structure of the causal mechanism.

In the next section, I will give more attention to the fit between grounded theory and critical realism.

### 2.3.3 *GROUNDING THEORY'S FIT WITH A CRITICAL REALIST STANCE*

As stated by Charmaz (2006, p. 2), "[g]rounded theory methods consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories 'grounded' in the data themselves."

Grounded theorists always commence the research process with data. This data is gathered through observations, interactions and the gathering of material about the studied phenomenon. (Charmaz, 2006) In accordance with Bhaskar's (2008) stratification of science, this would imply that the grounded theorist starts in the transitive domain of knowledge, or the empirical world. Given the limitations of a researcher's own observations in the empirical, the researcher however has to access additional data from the intransitive dimension of knowledge and more specifically from the actual. This is done through appropriate data gathering techniques to ensure that as much data as possible is accessed from both the empirical and the actual.

The purpose of the grounded theory process is however not just to gather data in the empirical and actual, but to develop theories that explain the mechanisms in the 'real world' that are creating the phenomenon being studied. Charmaz (2006) indicates that the finished grounded theory has to explain the studied phenomenon in new theoretical terms and it explains the properties of the theoretical categories that were developed in the process. This theory in addition often demonstrates the causes and conditions under which the studied phenomenon emerged. These conditions could be compared to Bhaskar's (2008) mechanisms and structures in the real that produce the observable events. Due to the importance of context in grounded theory, most grounded theories are substantive theories, but could reach across substantive areas into formal theory through the development of abstract concepts and delineating the causal relationships between them. (Charmaz, 2006)

The data collection, analysis and theory development processes are depicted in relation to Bhaskar's (2008) three domains of knowledge in Figure 15 on the next page.

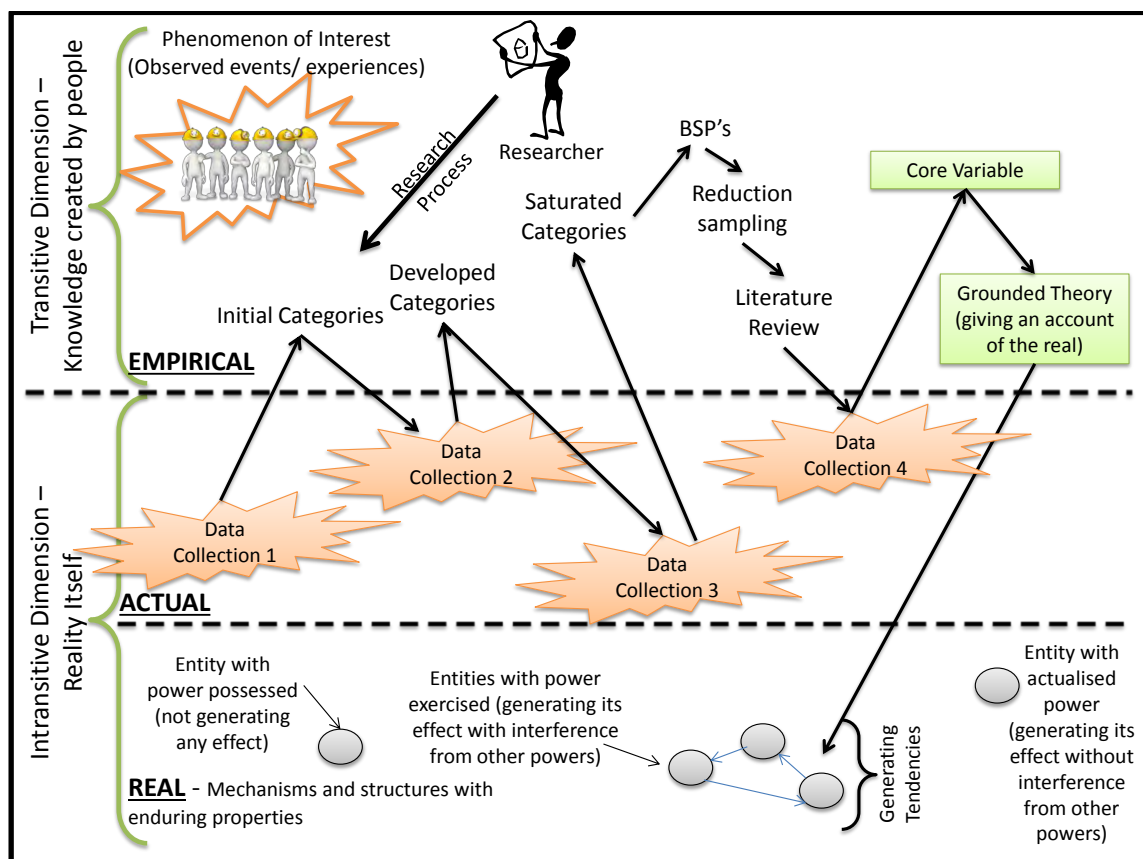


FIGURE 15. GROUNDED THEORY'S FIT WITH CRITICAL REALISM, ADAPTED FROM BHASKAR (2008) AND CHARMAZ (2006)

In the next section, I will explain how I applied grounded theory in my study to abstract the key concepts from the research context and to conceptualise and formulate a theory of the causal mechanism that created the phenomenon of interest.

## 2.4 GROUNDED THEORY AS A METHODOLOGY TO IDENTIFY THE CAUSAL MECHANISM

Charmaz's (2006) interpretation of grounded theory is based on a critical realist perspective. Charmaz's work therefore resonates with and compliments my worldview. I have therefore drawn extensively on the work of Charmaz in my approach towards the application of grounded theory in my study.

In grounded theory, the researcher does not aim at testing hypothesis from an existing theoretical framework, but rather to emerge the theory from the data. In this regard, Locke (2001, p. 34) stated that the distinctive features of grounded theory include "its commitment to research and 'discovery' through direct contact with the social world studied coupled with a rejection of *a priori* theorizing." Haig (1995, p. 3) however, added that grounded theory is often portrayed as a problem solving process and that "stating the problem is half the solution!" Even though Locke (2001, p. 34) indicated that grounded theory does not start with an existing theoretical framework, Haig (1995) intimated that it is required to have a thorough problem statement prior to commencement of the grounded theory study.

In my study, I therefore did not make use of a theoretical framework, but rather conducted a pilot study in order to formulate the problem before commencement of the grounded theory process. This pilot study resulted in the development of my conceptual framework that assisted me in identifying the research question. This conceptual framework was presented in chapter one.

Due to this characteristic of grounded theory, the researcher is also not required to review the body of knowledge prior to commencement of the grounded theory process. In fact, several authors suggest that it is preferred that the researcher does not conduct too much of a review of the relevant literature, to ensure that the categories that will be formulated in the grounded theory process are not influenced by existing categories in the literature (Charmaz, 2006). This approach in addition compliments a critical realist view, given that I would not want to pre-empt the variables that would form part of the causal mechanism that is creating the phenomenon of interest. Allowing the categories to emerge from the data would enable me to more accurately identify and formulate the causal mechanism in the real world. I will explain my approach towards literature in my study in more detail in chapter 4.

My explanation of the grounded theory process will focus on the key elements to consider in data collection, data analysis and more specifically the conceptualisation process that leads to the identification of the key variables used to construct the theory. I will do this by focusing on the main steps in grounded theory as interpreted by Charmaz (2006). These are:

1. Data collection;
2. Data analysis (including Initial Coding (also referred to as substantive coding or open coding) (Glaser & Strauss, 1967) and Focused Coding);
3. Theoretical Sampling; and
4. Theory Development

I will address each of the above steps in more detail, with specific reference as to how it was approached in this study to conceptualise the emergent variables and their relationships that form part of my theory.

#### **2.4.1 DATA COLLECTION**

Once I defined the research problem and formulated, a research question, the grounded theory process starts with data gathering. The data gathering process in a grounded theory study is not a single, once-off process, but is an on-going process aimed at crystallising the developing categories. Charmaz (2006) highlights this as an advantage of grounded theory, as new pieces of data could be added whilst analysis has already started, in order to follow leads that may emerge. It is therefore suggested that data analysis should commence as soon as the first set of data was collected.

From a critical realist perspective, the researcher observes events in the empirical world. Data collection, should however take place in the empirical world, as well as the real world. Due to my limited ability to



observe events in the empirical world, I therefore have to explore other methods of data collection in the real world that would enable me to identify the emerging patterns of events created by the causal mechanism. In this regard, Charmaz (2006) also indicates that the chosen data collection methods will determine what you find and therefore suggests using several data collection techniques. The research problem essentially pre-determines the methods that you should use and the data collection methods are in addition shaped by the research question. Data collection in a grounded theory study should also give attention to the appropriateness and validity of data. The aim is to gather rich data that would best depict the empirical events being studied. Attention should also be given to the amount of data gathered, as well as including multiple views (Charmaz, 2006).

The data collection focus of my study was aimed at identifying factors that indicated how learning readiness and engagement of the learning process, impacted management development and lead to the development of more effective managers for AGA. I had three data collection phases in this study. The first data collection phase focused on collecting reflective writings of students who completed their management development programmes. The next data collection process used participant observation to record key observations. The last data collection process included interviews with key research participants.

During the first data collection process, I gathered the reflective papers written by students on their management development programmes for analysis. I collected reflective papers from fourteen management development programmes presented over the period 2003 – 2009 in this data collection phase. Seven of these programmes were Post Graduate Diploma Programmes and seven programmes were Certificate Programmes. At least four papers per student were assembled. A total of approximately 460 students' assignments were collected for the start of the data analysis process. Due to the magnitude of data collected in this first phase, it was required to use software to enable the analysis of large amounts of data. NVivo was therefore sourced as a suitable software solution for this phase of my research process.

Data analysis commenced as soon as I collected the first data. Data analysis will however be discussed in more detail under the next section.

During the initial coding process, categories started to take shape as I started to conceptualise the emergent patterns that I observed in the data. As soon as these initial categories took shape, I was in a position to collect additional data that could further enrich my data that I had already collected. I collected additional data through participant observation that took place during the contact periods that I had with the students on the management development programmes. Data collection through participant observation was an on-going data collection process that I continued to do until the last stages of the data analysis process. This enabled me to ensure that I had sufficient data until no new patterns emerged from the data.

The last form of data collection that I applied during my study was conversational interviews. This data collection process was aimed at exploring questions that arose as a result of the coding process and to ensure

that the categories reflected the experiences of the research participants. This will be discussed in more detail under theoretical sampling.

#### 2.4.2 DATA ANALYSIS

The generation of emerging conceptualisations commenced with the initial coding process. Initial coding as proposed by Charmaz (2006) is also referred to as substantive or open coding by Glaser and Strauss (1967). The purpose of initial coding is to analyse the raw data and identify codes that could be further developed in order to explain the studied phenomena. Corbin and Strauss (2008) indicated that this step in the analysis of data is aimed at exploring the raw data and moving it to a higher conceptual level through a coding process. The initial coding process is however more than merely listing codes; it requires intensive interaction with the raw data. Corbin and Strauss (2008, p. 56) aptly illustrate this point as follows:

"It is more than just noting concepts in the margins of the field notes or making a list of codes as in a computer program. It involves interacting with data (analysis) using techniques such as asking questions about the data, making comparisons between data, and so on, and in doing so, deriving concepts to stand for those data, then developing those concepts in terms of their properties and dimensions."

During the coding process, grounded theory allows the researcher the 'conceptual license' to interpret the data, as opposed to merely describing the data in terms of codes. This conceptualisation process in grounded theory assists in dealing with problems faced by many other descriptive methods such as; what is fact, interpretation and how data is constructed (Glaser, 2002). The conceptualisation process allows the researcher to identify and name the emerging categories and their properties. In this regard, Glaser (2002, p. 2) stated that the emergent conceptualisations are 'denoted by categories and their properties'.

During the coding process, the conceptual level of the data increases. Glaser (2002) indicated that the goal of grounded theory is to arrive at a minimum of the third level of conceptual analysis. The coding process that I applied assisted in this regard in that it consisted of initial coding, focused coding and then axial coding.

Charmaz (2006) referred to the first coding phase as initial coding. This coding process is aimed at analysing the data in order to develop open or often in-vivo codes that depict key characteristics of the studied phenomena. Charmaz (2006, p. 48) indicated that "(i)ntial codes are provisional, comparative, and grounded in the data" The initial coding process should ideally commence soon after the first set of data was collected. Initial coding could provide further direction to the data gathering process by highlighting areas where more data is required.

The second coding phase could be referred to as focused coding. During the focused coding process, the most useful initial codes are selected and measured against extensive data, until the key categories emerge from the data. The second coding process is therefore more focused and selective. It is important to take note that in

the grounded theory coding process, one does not apply any preconceived categories onto the data, but rather emerge the categories from the data (grounded theory's conceptual license) (Glaser, 2002).

The focused coding process is completed with axial coding that is aimed at relating categories with subcategories and to develop the dimensions and properties of categories. Once the categories are developed, theoretical coding completes the data analysis process by concretising the categories towards a more sophisticated level and by considering relationships between categories.

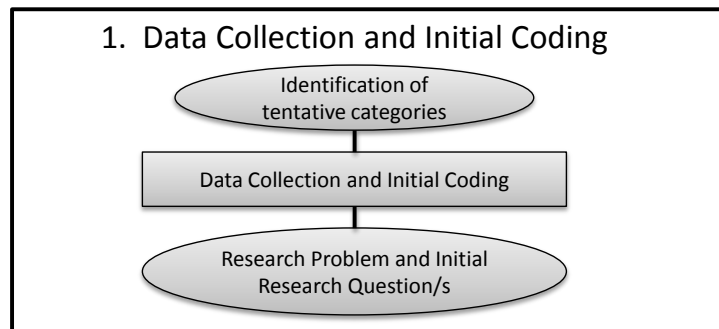
Besides the use of the Qualitative Data Analysis Software, several strategies are proposed for the analysis of the raw data. Strategies that are mentioned by several authors include *inter alia* questioning, drawing on personal experience and looking for emotions that are expressed and looking at language. (Charmaz, 2006; Corbin & Strauss, 2008). The strategies applied for this study were:

- Questioning: Questioning allows the researcher to get closer to the data by exploring the data in accordance with key exploratory questions. I applied several questioning techniques throughout the study to ensure that I am continuously sensitized to what the data might be indicating and what data is still required to be collected (Charmaz, 2006). It was through questioning that the first data collected that I decided to use participant observation as a secondary data collection method. Questioning in addition ensured that I remained sensitive to the data and that the categories that I formulated during the conceptualisation process had a close fit with the data.
- Drawing on Personal Experience: Due to my position in relation to the programmes, it was unavoidable to draw on personal experience as an analytical tool during the coding process. I however had to ensure that my own personal bias does not influence the identified codes to such an extent that it loses its fit with the data. Personal experience however assisted in closing the gap in the interpretation of data where a language barrier prevented a student from effectively expressing his/her personal learning. Grounded theory's 'conceptual license' enhanced the data analysis process in this regard.
- Looking for emotions that are expressed: Giving attention to the expression of emotion assisted in formulating unique categories that represented participants and their context and had a close fit with the data. This was particularly useful during the identification of in-vivo codes.

Glaser (2002, p. 3) indicated that the two most important properties of conceptualisation in grounded theory are that "concepts are abstract from time, place, and people, and that concepts have enduring grab." Codes that are conceptualised in a grounded theory study are social patterns that the researcher identifies in the data. These codes are identified through a process of constant comparison during which the researcher compares codes to data, codes to codes and categories to categories (Corbin & Strauss, 2008). Even though the data analysis process makes use of several strategies as indicated above, the process is integrated through constant comparison. I also used constant comparison it to ensure that I remain close to the data and research context.

During my initial coding process, the initial codes that I identified were raised to tentative categories, leading to the identification of 777 initial (or substantive/open) codes that were then used to further categorise the data.

The first steps in the grounded theory process as applied in my study are depicted in Figure 16 below.



**FIGURE 16. GROUNDED THEORY STEP 1 (AS ADAPTED FROM CHARMMAZ) (CHARMAZ, 2006, P. 11)**

Focused coding is the second coding process and is more directed and selective in nature to ensure the development of good categories that depict the nature of the data selected. During the focused coding process, it was required to scrutinise the tentative categories and select those that most appropriately fitted the data in order to continue categorising the data.

During the focused coding process, axial coding was used as an approach to organise the large set of tentative categories into more well-constructed, refined conceptual categories. During axial coding, categories are related to subcategories, whilst giving due consideration to properties and dimensions of each category. Charmaz (2006, p. 60) stated that the purpose of axial coding is “to sort, synthesize, and organize large amounts of data and reassemble them in new ways after open coding”

Useful organising schemes proposed by Charmaz (2006) include categorising for specific conditions or circumstances; actions or interactions; and consequences. Axial coding was useful in focusing the coding process towards more complete conceptual categories.

Focused coding in phase two of the project aimed at reducing the 777 initial coding categories into a number of more focused conceptual categories. Comparisons were made between the initial categories and data, as well as between different data segments. The focused coding process enabled reduction of the tentative categories into 58 conceptual categories that had a good fit with the data.

The naming of a pattern or category in grounded theory has to ensure that the concept is both valid as well as grounded. This requires a constant process of trying to fit the concept with the data to ensure that it best reflects the identified pattern observed. During this process the researcher has to remain theoretically sensitive and even if in vivo codes are used, those are selected due to the manner in which they reflect the

social patterns in the context and not because they are purely descriptive (Glaser, 2002). Theoretical sensitivity is a key aspect that the researcher brings to the research context in that the research participants will mainly provide ‘impressionary concepts based on one incident or even a groundless idea’ (Glaser, 2002, p. 5), whereas the researcher will generate grounded theory concepts from the data.

The second step in the grounded theory process is depicted in Figure 17 below.

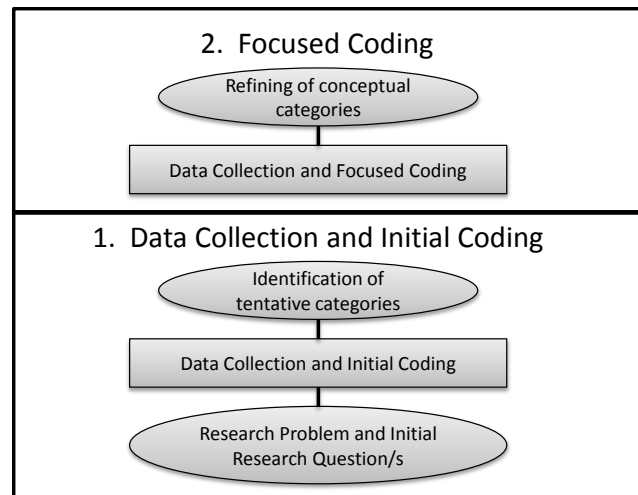


FIGURE 17. GROUNDED THEORY STEP 2 (AS ADAPTED FROM CHARMAZ) (CHARMAZ, 2006, P. 11)

### 2.4.3 THEORETICAL SAMPLING

The main purpose of theoretical sampling is to refine the emerging categories that would be used to develop the final theory, aimed at saturating each category to the extent that no new properties of the categories are found. (Charmaz, 2006, p. 48) Charmaz indicated “...categories are ‘saturated’ when gathering fresh data no longer sparks new theoretical insights, not reveals new properties of your core theoretical categories.” (p. 113). It also implies that your categories must be sufficiently developed in terms of their characteristics and properties. This process often raises the conceptual level from a substantive to a formal theory (Glaser B. , 2002). A saturated category would best reflect the qualities of your respondents’ experiences.

Charmaz (2006) however questions the validity of claiming saturation in that a fully saturated category could infer a closed system. Claiming saturation therefore contradicts a Critical Realist stance in that Critical Realism acknowledges systems are open and continuously changing based on the actors and participants’ actions and resultant emerging processes (Fleetwood, 2011). It is therefore acknowledged that even though a rigorous process is followed to develop categories, a pure claim for saturation would be unrealistic given the dynamic and ever changing nature of social contexts. As indicated before, I will therefore rather focus on the ‘inference to the best explanation’ (Haig, 1995).

The theoretical sampling process was further enhanced by reflecting back on memos that were written. Memos allowed for the identification of gaps and more focused sampling in order to saturate the categories.

Memo writing is a technique that is applied throughout the data gathering and analysis process. Writing memos enables the researcher to develop his/her ideas about the studied phenomena. Memo writing is often focused at exploring ideas about emerging categories as well as to make comparisons.

During the final analysis, selective sampling of the literature and selective sampling of the data enabled the key categories to emerge, as well as the identification of the core variable. According to Corbin and Strauss (2008), the core category that is identified as a result of the analysis, represents and describes the main theme associated with the phenomena being studied. This is the category that explains most of the other categories.

The third step in the grounded theory process is depicted in Figure 18 below.

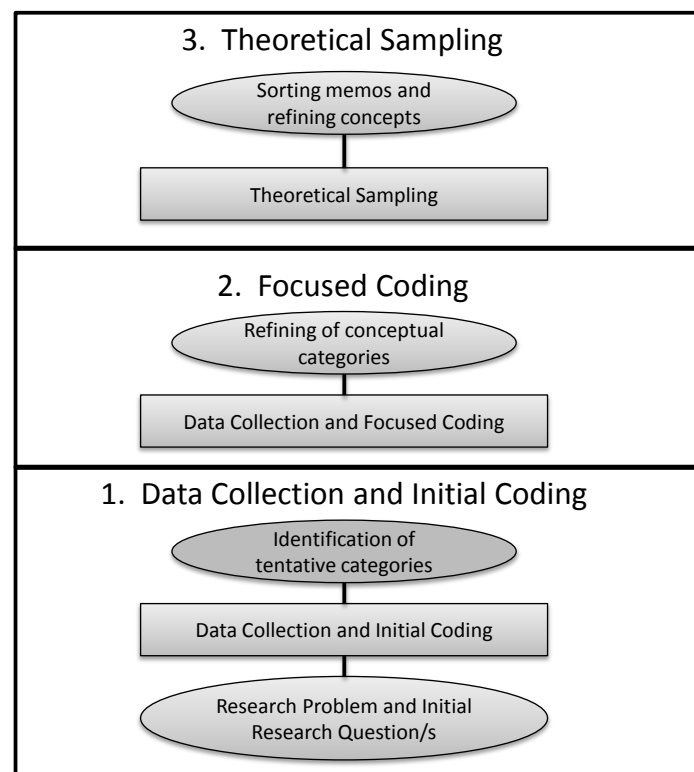


FIGURE 18. GROUNDED THEORY STEP 3 (AS ADAPTED FROM CHARMAZ) (CHARMAZ, 2006, P. 11)

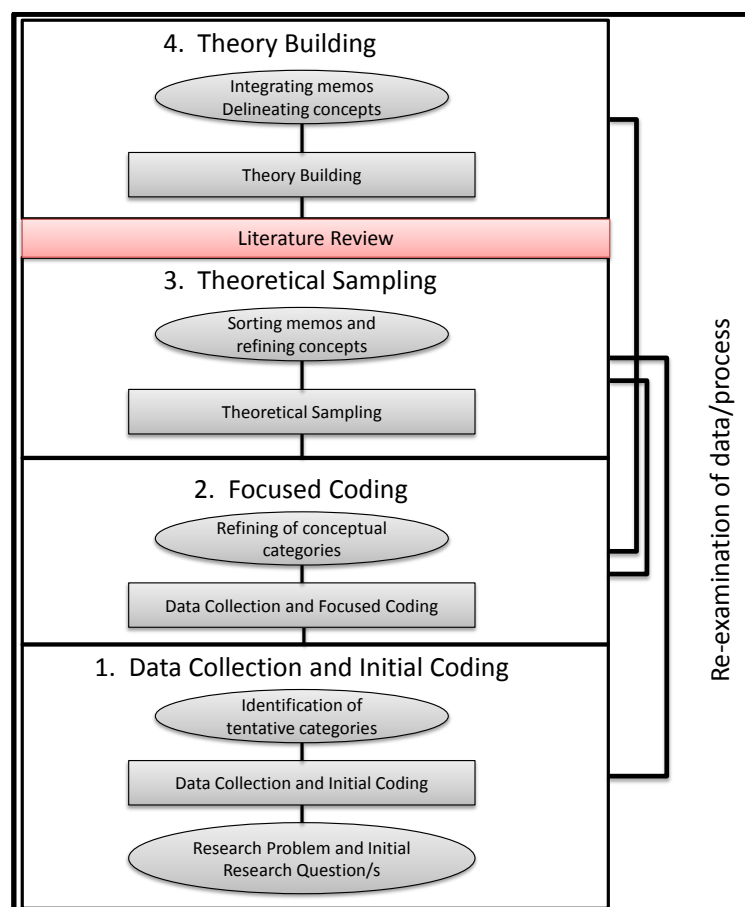
In the next section, I will provide an overview of the theory building process in grounded theory.

#### 2.4.4 BUILDING THEORY IN GROUNDED THEORY

A grounded theory aims at explaining the studied phenomena “as given in *action*, not merely stated in reconstructed accounts.” (Charmaz, 2006, p. 123). In accordance with my critical realist stance, this would imply that a grounded theory aims at describing the causal mechanism that is creating the phenomena observed in the ‘real’.

From a critical realist perspective, theory building involves the development of plausible theories of how the variables in the real world interact with each other and form the structure of the causal mechanism that is creating the studied phenomena. Theory building in critical realism therefore moves from the empirical and actual, to plausible explanations of the real world. The theory for this study will focus on developing a causal model that explains the relationships between the key variables identified in the grounded theory process.

For the purposes of my study, theory building only commenced at completion of the literature review and will be discussed as a separate section in chapter five. The complete grounded theory process is depicted in Figure 19 below.



**FIGURE 19. THE GROUNDED THEORY PROCESS AS ADAPTED FROM CHARMAZ (CHARMAZ, 2006, P. 11)**

In Figure 19 above, it is illustrated at what stage in the grounded theory process I undertook the literature review. For the purpose of presenting the research findings in the next chapter, the grounded theory process will therefore only be discussed up until point 3 – theoretical sampling, as depicted in the diagram above.

Figure 20 below provides a diagrammatical depiction of the integration between critical realism and grounded theory.

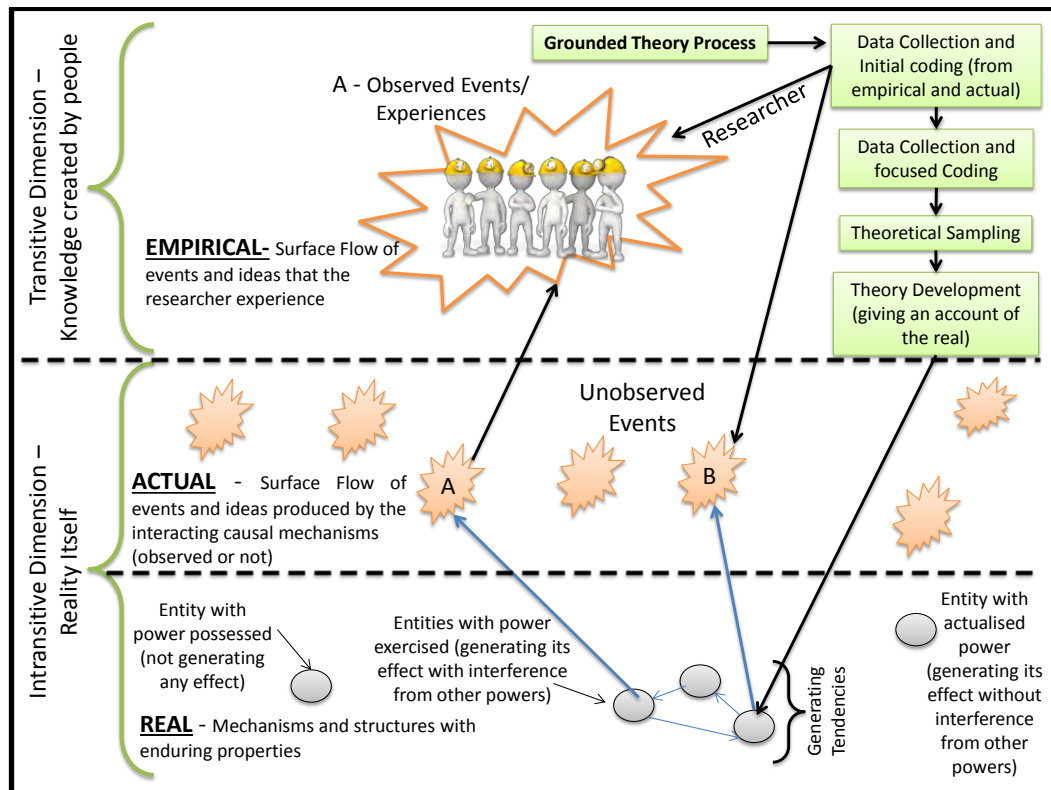


FIGURE 20. INTEGRATION BETWEEN CRITICAL REALISM AND GROUNDED THEORY

In Figure 20, the main steps in grounded theory are integrated into a critical realist framework. It illustrates how the grounded theory process aims at gathering data in both the empirical and the actual worlds in order to develop plausible theories that could explain the mechanisms and structures in the real world that is creating the studied phenomena.

#### 2.4.5 ADDRESSING VALIDITY IN GROUNDED THEORY

Glaser and Strauss (1967, p. 237) identified four criteria that could be used to judge how well a theory represents the studied phenomena:

- Fit;
- Understanding;
- Generality; and
- Control

Glaser and Strauss' (1967, p. 237) criteria for a valid grounded theory will be used in chapter five to assess the grounded theory that I developed. There are similarities between the above criteria and those identified by Guba and Lincoln (1994). The strategies for dealing with validity in the grounded theory process will therefore be similar to those explained earlier under the section on dealing with validity in qualitative research.



In order to minimise researcher bias and as advocated by Herr and Anderson (2005), multiple sources of data were used to gather data. The practice of using multiple sources could also be referred to as triangulation. Triangulation implies the mixing of a number of perspectives on the studied phenomena. According to Olsen (2004, p. 3), triangulation in social science is the 'mixing of data or methods' that enables the researcher to obtain different viewpoints of the studied phenomena. Using different methodologies could enable the researcher to obtain novel insights that may otherwise have been missed. The application of sound research strategies could also assist in dealing with issues of validity. These will be discussed in the next section.

### Research Strategies in Grounded Theory

Research strategies in grounded theory that were applied throughout this study include (Charmaz, 2006):

- 1) *Simultaneously being involved in data collection and the analysis process.* A key principle of grounded theory is to start data analysis as soon as possible after the first data is collected. The first data collection process in this study was extensive and resulted in a tremendous amount of data being available simultaneously. During the analysis of this data, the second data collection process was however on-going. Whilst the first set of data was analysed, participant observation could therefore become more focused as the codes started to be formulated from the data. This allowed for more focused observations.
- 2) *Constructing codes and categories from data and not from preconceived hypotheses.* This aspect is challenging for a researcher to adhere to, as it is almost impossible for a researcher who is also involved in the research area to adopt a 'clean slate' approach towards the research process. In order to remove researcher bias in the coding process, the in-depth coding process was therefore done as a team. This allowed for some measure of objectivity in the coding process.
- 3) *The constant comparison method.* This method allowed for the comparison of new data collected with that already analysed in order to identify key emerging themes/hypotheses or hunches. It further allowed for the identification of new sources and perspectives.
- 4) *Memo writing.* Memo writing was used to elaborate on emerging categories, define their properties or to draw relationships with other emerging categories.
- 5) *Theoretical Sampling.* In this study, theoretical sampling was aimed at confirming the categories that were developed. Theoretical sampling was done through interviews with research participants in order to fully develop the categories.
- 6) *Conducting the Literature Review after conducting an individual analysis of the data.* The role of literature in this study will be explained in more detail in chapter 4.

Given the description of the grounded theory process, as well as the explanation of research strategies used in this study, there are however certain practical considerations that have to be taken into consideration in a grounded theory study. These practical considerations will be explored in the next section.

#### 2.4.6 *PRACTICAL CONSIDERATIONS IN GROUNDED THEORY*

One of the key practical considerations in grounded theory is for the researcher to remain sensitive to the data. Charmaz (2006) indicated that to claim objectivity in grounded theory is a myth as the researcher brings with his/her own experiences, biases, knowledge, training and other factors to the research context. It is therefore important for the researcher to focus on sensitivity to be able to notice issues and nuances in the data and being able to present the view of others through the data.

Sensitivity could in addition allow the researcher to be aware of the subjectivity involved in data analysis and therefore being more aware of how he/she influences interpretations of the data. The researcher's background and prior knowledge could however be beneficial in identifying concepts in data and finding connections between those concepts. (Charmaz, 2006)

These practical considerations played a significant role in this study seeing that I am closely involved with the management development programmes. I had to ensure that my experience adds to the richness of the theory being developed, but did not compromise the validity of the theory due to researcher's bias. My experience with these programmes did however contribute significantly towards my ability to remain sensitive to the data.

An additional advantage of using grounded theory is in its modifiability. Nathaniel and Andrews (2010) indicated that one of the 'unique tenets' of grounded theory is that the researcher can modify the theory as new facts become available. A well-developed grounded theory can therefore retain its relevance over time as it is enriched by further research. This would add particular practical value to my theory in particular.

In the next section, the ethical issues that had to be taken into consideration during this study will be addressed.

### 2.5 ETHICAL CONSIDERATIONS

Key points to take into consideration regarding ethics in research are amongst others, the requirement to obtain consent for participation from the research participants, as well as maintaining participant confidentiality. Another ethical dilemma that could occur is how to deal with sensitive information, should such information be required either in order to complete the study, or emerge because of the research process. Oliver (2010) in addition drew attention to ethical issues relating to research goals, ethics in the publication and dissemination of research as well as the funding and sponsorship of research. The main ethical dimensions relevant to his study will be discussed briefly, as well as strategies applied to deal with these.

#### 2.5.1 *ETHICAL IMPLICATIONS OF THE RESEARCH GOALS*

There were no ethical implications relating to the goals of this study. The practical goal of this study was to improve my teaching practices through an action research process. Improvement of my practice would

benefit the learners, as well as myself and the client organisation. No harm would be done to any stakeholder in the pursuit of this goal.

The practical goal of this study is, in addition, aimed at defining how the learning process increases the effectiveness of the management cadre of AGA. This goal would benefit AGA as this could contribute towards the organisation's judgement of the applicability of the management development programme to achieve human resource development goals and objectives.

The intellectual goals of this study were to develop a learning theory that explains the causal mechanism that created the identified phenomena. Developing this knowledge could assist me in the design and development of future management development programmes, but it could also contribute to the existing body of knowledge. This goal would not have any ethical implications either.

### 2.5.2 *FUNDING AND SPONSORSHIP*

The grounded theory process in order to determine the conceptual change that occurred in the managers was funded by AGA as part of a joint initiative between the UCT GSB and AGA to submit a case study for the European Foundation of Management Development, Research in Practice Award, case writing competition. The funding covered my time spent on the research and writing of the case study, as well as the time of a research assistant. I therefore derived the benefit from this agreement in that the case study data and analysis was used as part of this research study as well.

A potential ethical dilemma that could have occurred in this instance was the benefit that I received as a result of this agreement. This financial benefit could potentially influence me in terms of the data analysis in order to derive acceptable results for the funder. I was however mindful of this aspect and attempted to deal with this potential ethical dilemma through the use of the research assistant that assisted with the data analysis process. Prior agreement was also obtained from AGA that the data and research results could be used as part of this study. Process management included regular reports to the funder in terms of agreed milestones and deliverables. The scope of the submitted case is however far less than that of this study and there was no issue relating to the use of the same data for multiple purposes. The case study only provided a descriptive analysis of the change that occurred in the managers, whereas this study explores the causal mechanisms that enabled that change to occur.

### 2.5.3 *PUBLICATION AND DISSEMINATION OF RESEARCH*

The case that was submitted for the case writing competition included only the initial identified categories that describe the conceptual change. AGA and the UCT GSB were not successful in terms of their submission and the case was therefore not published. There were no other publications or dissemination of findings resulting from this study.

#### 2.5.4 *DATA GATHERING AND CONSENT FROM RESEARCH PARTICIPANTS*

The main ethical consideration relating to the research methods and sources was to ensure student confidentiality at all times. To this effect, permission was sought from the students for the use of their personal reflections in the data analysis process. AGA assisted with this process and obtained permission from the alumni that their assignments may be used in this study as a source of data. Student consent was obtained under the condition that no personal information would be used in the process that may identify an individual's reflections from another's. This condition was strictly adhered to throughout the data analysis process.

#### 2.5.5 *CONFIDENTIALITY OF DATA*

No prior conditions were stipulated by AGA in terms of confidentiality of data. At no time during the study was data uncovered that were deemed to create an ethical issue due to confidentiality. The main consideration remained the confidentiality of research participants and not so much the data used. In order to comply with institutional requirements, ethical clearance was applied for through the Graduate School of Business Ethics Committee and approval for continuation of the study was received.

### 2.6 CONCLUSION

In this chapter, the building blocks of the research framework for this study were identified as ontology, epistemology, methodology, methods and sources. The research challenges associated with the nature of the social world were discussed and an argument was presented for the usefulness of grounded theory as a methodology to define the causal mechanism that produced the phenomenon of interest. An explanation of the conceptualisation process in grounded theory was presented, followed by a description of the fit between grounded theory and critical realism. Charmaz's (2006) interpretation of grounded theory was adopted for this study, due to her critical realist interpretation of grounded theory.

The methodology was explained with consideration given to data collection, data analysis, theoretical sampling and theory building. Research strategies and practical considerations when using grounded theory were explained where appropriate. A key point made in this chapter was that the theory building process for this study only commenced after the literature review was completed. This chapter concluded with a discussion of key ethical issues in research and specific ethical issues that had to be dealt with in this study. The next chapter will present the empirical research findings for this study, following a similar process to what was used for the presentation of the methodology in this chapter.

### 3 RESEARCH RESULTS

In the previous chapter, the building blocks of the research framework for this study were identified and explained in terms of ontology, epistemology, methodology, methods and sources. My ontological view was presented in chapter one and critical realism was identified as a suitable ontology for the nature of this study. Critical realism presupposes a constructivist perspective of knowledge creation. The key principles of my epistemology were explained in relation to a critical realist ontology.

Grounded theory was presented as a suitable methodology to develop an interpretation of the causal mechanism that produced the studied phenomena. An explanation was provided for the design of the research process aimed at answering the research question and consideration was given to ethics in research and the key ethical issues that required attention in the study were examined.

In the next section, I will provide a brief introduction to this chapter, by explaining my approach on the presentation of the research results.

#### 3.1 INTRODUCTION

In this chapter I will guide the reader through the application of the grounded theory process that I undertook by explaining how I conceptualised and developed one of the key variables in this study. I will do this by firstly providing information on the research participants, followed by an explanation of how I dealt with each stage of evolution of the conceptualisation of the key variables. This will be done in three evolutionary stages, that each contributed towards the development and conceptualisation of the key variables that were identified in this study.

The first evolutionary stage was aimed at identifying the first set of initial categories. This evolutionary stage will be referred to as initial coding (Charmaz, 2006). The first evolutionary stage was followed by the focused coding stage (second evolutionary stage). During this stage, I aimed at further enriching the initial categories by engaging in theoretical sampling through participant observation. This evolutionary process led to the identification of the tentative categories that underwent one more evolutionary process, focusing on concept formation. The last evolutionary process will be referred to as concept formation.

This chapter will conclude with a description of each of the key categories that were conceptualised during the grounded theory process. In the next section, I will provide an overview of the research participants who contributed towards the data that I gathered for my study.

#### 3.2 DESCRIPTIVE DATA OF RESEARCH PARTICIPANTS

In chapter one I indicated that the social boundary for this study determined that the research participants were all AGA employees who were alumni of the management development programmes. In this section, the profile of the research participants will be described in more detail.

The research participants that were identified for this study, included students who graduated from the Certificate as well as Post Graduate Diploma programmes and were employees of AGA. It was decided to include only the programmes that had at least a year's lapse since the graduation of the students. This decision was taken in order to allow for a more objective response from the research participants, as it was felt that students who have just completed their programmes may still suffer from 'study fatigue' to some extent. Giving a time lapse between the completion of the programme and engagement of the students in this study will also allow a period during which the theories taught could be embedded (or not) in their work context.

The approach in selecting the research participants was firstly to identify all those students who successfully graduated from the programmes that took place between 2003 and 2009. Students who did not complete the programme for any reason were eliminated from this study.

The total number of students included in the study was 130 students who graduated from the Certificate level programme, referred to as the Intermediate Management Development Programme (IMDP), as well as 102 students who graduated from the Management Development Programme (MDP), which is the Post Graduate Diploma programme (hereafter referred to as the programmes). A breakdown of the number of research participants per country as well as gender is provided in the table below:

**TABLE 1. BREAKDOWN OF RESEARCH PARTICIPANTS PER COUNTRY**

Country	IMDP	MDP
Australia	0	6
Brazil	10	5
Ghana	23	11
Guinea	8	2
Mali	23	4
Namibia	0	4
South Africa	59	67
Tanzania	7	2
<b>TOTAL</b>	130 (101 Male + 29 Female)	102 (89 male + 13 Female)

The research participants in this study were from all the functional areas in the organisation – both operational as well as support functions. It could therefore provide a broad understanding of how the programme increased management effectiveness across different areas in the organisation.

The sample size was deemed sufficient seeing that the total number of students who graduated from these programmes was approximately 460 students at that time, and the students included in this study numbered

232. The sample therefore included just over 50% of the total number of students who graduated from these programmes. It was felt that this sample is a sufficient representation of the total student cohorts.

The research results will be presented in the following sections, with specific reference to the conceptualisation process that led to the identification of the key categories and how these categories answer the research question. The presentation of the research results will follow the same format as the discussion of the grounded theory process in the previous chapter. I will therefore focus on data collection, data analysis and theoretical sampling. The theory building process will be presented in chapter five.

### 3.3 FIRST EVOLUTIONARY STAGE: INITIAL CODING

The first evolutionary stage was aimed at gathering and analysing data with the purpose of identifying the first initial categories that could be used for further coding of data. This process will be explained in the following sections.

#### 3.3.1 *THE FIRST DATA SET*

The grounded theory process was aimed at conceptualising the key variables that formed part of the causal mechanism that created the conceptual change in the managers of AGA who completed the management development programmes. The first part of the research problem was to identify what this conceptual change was, followed by the identification of the mechanism that enabled this change to occur. The first data collection process was therefore aimed mainly at gathering data that could assist me in defining the conceptual change that occurred. I decided to analyse students' assignments that could provide information on how they developed during the programme.

Assignments for fourteen programmes presented over the period 2003 and 2009 were gathered during the first data collection process. Seven of these programmes were Post Graduate Diploma Programmes and seven programmes were Certificate Programmes. Three types of student assignments were used as data sources;

- Position Papers;
- Action Research Learning Papers (in some courses referred to as Small Wins Papers); and
- Reflective Practice Papers (in some courses referred to as Reflective Papers).

In the next few paragraphs, the purpose of each type of assignment will be explained to illustrate the appropriateness of the written assignment as a source of data.

The purpose of the position paper is for the student to engage the module theme and to develop a conceptual framework of the relevant theories. This conceptual framework adapted the theories to make them applicable in the student's own management practice. The student then had to identify an area for improvement in his/her context, relating to the module theme. A problem formulation process is followed to develop an

answer that could deal with the concern. The position paper then proposes a solution to deal with the concern. The position paper forms the basis for action in the Action Research Learning Paper.

The Action Research Learning Paper is designed to enable the student in an exploratory manner to define a problem, develop a solution and through an action research learning process implement the solution through a series of small wins. The student in addition has to assess the impact of the small win in order to deal with the concern.

The Reflective Practice Paper is a personal reflection on the effectiveness of the student's management practice. The purpose of a Reflective Practice Paper is for a student to develop a reflective synthesis of his/her learning experience that occurred over the period of one module of a programme (between 14 – 20 weeks). The reflective process engages all the assignments that a student had to complete during an inter module period. The student had to record a number of weekly reflections, critical incident analysis, as well as conversation analysis that are used to identify the key learning for the particular module. The design of the reflective practice paper process is a naïve grounded theory process that enables the student to identify the key learning categories that depict his/her personal learning experience. These categories focus on the following key areas:

- Improvements that the student made in his/her context.
- Improvements that the student made in his/her management practice.
- Improved understanding of management theory.

The outcome of this type of paper is a rich description of personal learning and insight that provides a basis for personal development. During the write-up of the paper, students had to provide empirical evidence of the above improvements identified.

A challenge that I found during the preparation of the data for analysis was that the nature of the assignments changed over the years of the programme. It was however not a drastic change that could impact the validity of the data. It was found that the action research learning assignments in later years were included in the position papers. For the last two years of analysis there were therefore no separate action research learning assignments, as this component was included in the position papers.

All student assignments on these programmes are submitted electronically on the e-learning platform of the UCT GSB. It was therefore relatively easy to access such a huge number of assignments for data analysis. Before accessing the student assignments, AGA's course co-ordinator obtained permission from all the students that allowed the researcher to use the assignments for research purposes. The agreement set out that no personal details of any student would be revealed in this study. The first data gathering process provided an extremely large set of data for analysis. At least four papers per student were available for analysis. A total of approximately 232 students' assignments were incorporated into this data analysis process.



This implied that the data available for analysis amounted to just over 900 assignments that were available for analysis. A tremendous task was lying ahead with the analysis of all this data.

### 3.3.2 *MAKING SENSE OF THE FIRST DATA SET*

The first data collection process provided a significant amount of data that was available for analysis at the same time. Data analysis therefore commenced in all earnest by systematically analysing each student's assignment for emerging patterns that could be conceptualised into codes.

One of my first challenges during the commencement of the data analysis process was which assignments to start with. I selected the position papers as the first type of assignment to analyse. I however found that the position papers did not have sufficient clear evidence of personal learning, as they were mainly focused on integrating the theories into practice and had a more academic focus. The position papers in later years however included implementation of the initiatives. This provided data that are more useful, given that the students had to reflect on the effectiveness of their interventions to deal with the concern. The reflections in many instances provided valuable data that could be interpreted and developed into codes. The assignments that provided the most useful information were however, the reflective practice papers. These papers were a personal reflection of the students' personal learning and development. My primary focus during the analysis of the students' assignments was therefore focused on the reflective practice papers. The analysis of these texts was a tremendous undertaking and consisted of several levels, as also indicated by Charmaz (2006).

Charmaz (2006) referred to the first part of the substantive coding process as initial coding, whereas Glaser and Strauss (1967) referred to this as open coding. During this first coding process, I reviewed the data to extract concepts (or conceptual labels) that could later be developed in terms of their properties and dimensions. This step is the first level of the conceptualisation process that will facilitate the emergence of the key categories. Corbin and Strauss (2008, p. 160) stated that "Conceptualizing data not only reduces the amount of data the researcher has to work with, but at the same time provides a language for talking about the data." This process therefore allowed me to break down the raw data in order to interpret and develop codes that could form the basis for discussions and interviews in subsequent data gathering processes.

The conceptualisation process in grounded theory however poses many challenges to the researcher. Holton (2010) stated that "knowing how and when to engage in the various aspects of coding is essential to capturing the conceptual power of the methodology". Holton indicated that this first step in the coding process could be particularly problematic to the researcher and proposed that line-by-line coding could enable the researcher to stay focused on what is really in the data.

My initial coding process focused on studying the selected data line-by-line or paragraph-by-paragraph for any indication of personal learning or change in management practice. Fragments that reflected emergent social patterns in the data were assigned an initial code (or conceptual label) and in some instances in-vivo coding was used. A clear example of a very applicable in-vivo code was in the instance where a student was at a loss

for words due to the extent of his personal development and learning. The student therefore resolved to conclude his paper with the exclamation “I learnt a lot!” It was deemed significant in portraying the student’s general feeling about the learning experience to capture this as an in-vivo code.

Conceptualising and formulating codes in grounded theory should be abstract from time, place and people. This is one of the main differentiators between grounded theory and qualitative data analysis (QDA). In QDA, one would describe time, place and people, whereas the conceptual licence that grounded theory allows the researcher; facilitates the process of interpreting the data and formulating codes that represent the underlying social pattern that the researcher observes. The process of naming a code in grounded theory is therefore an abstraction from the data and this implies that the conceptualisation transcends beyond the time, place and people in the research context (Glaser, 2002).

Corbin and Strauss (2008, p. 160) indicated that coding means “learning to think abstractly.” Von Glasersfeld (1995) in addition indicated that in order to classify different pieces of data under the same code, we need to develop the code as being flexible enough to allow for an acceptable level of variability. This would imply that the codes we develop are abstracted from the data and have to be more generalised in terms of certain properties and dimensions.

Corbin and Strauss (2008) further stated that coding does not imply taking a raw piece of data and using it directly as a code. Coding implies interpretation of the data and describing conceptually what the researcher believes the data is representing. This conceptualisation process highlights the importance of language in meaning. Von Glasersfeld (1995, p. 47) indicated that “...the meaning of words is to be found in the minds of speakers, rather than in the domain of so-called real objects.” From a critical realist perspective this implies that the words and symbols we use to describe the real world contain our own meaning and interpretations and are not the real world itself. This could be particularly problematic in instances where language barriers also play a role, as in the case of my study. For the majority of the students on our programmes, English is not their first language, but it is the official language of instruction on the programme.

Given the above, grounded theory’s conceptual licence, as well as my experience in the field, played an important role in the conceptualisation process, in that I had to interpret the raw data and develop codes that I felt sufficiently explained the social process that is depicted in the data. Due to the length of the individual assignments that had to be coded, the specific method utilised for the initial coding was at times line-by-line coding and in other instances taking a whole fragment, aimed at crystallising the significance of the points listed by each student. It was not practical to use word-by-word coding due to the extent of the data that had to be analysed. An example of a code that was developed using a whole fragment of data is depicted in the example below. I will use this code to illustrate the conceptualisation process up to the identification of the core variable.

- **Data fragment:** “The tendency to act on my natural prejudice in situations. This one dimensional style prevents me from reflecting, redirecting and letting go in difficult situations. I tend to cling to

negative past experiences without an attempt to search for positives that I can learn from and use to do things differently in future. I also tend to be very emotional about situations. My over emotional state clouds my objectivity and prevents me from taking rational decisions. I have created the mindset within myself that I need to be in control in order to achieve success and this is having the exact opposite effect on me and it prevents me from discovering new ideas and inputs.”

During the process of conceptualisation of the above data fragment, it became clear to me that this student had an increased awareness of how his personal behaviour influences his perspective in situations. This affects his behaviour in the workplace and has a negative impact on his management practice. I therefore phrased the code as follows:

- **Code:** Students are more aware of how they behave in the workplace and how it affects their management practice.

The above example illustrates how I extracted a social pattern from a data fragment. It is clear from the above example that a grounded theory code does not need to describe the whole unit of data, it just has to define the core process therein (Glaser, 2002). The process of abstracting the code in addition raises the conceptual level of the data by one level. This also illustrates how the grounded theory code is abstract from time, place and people. This process of abstraction and conceptualisation is similar to the ‘Ladder of Abstraction’ as proposed by Hayakawa and Hayakawa (1990).

The code above could be referred to as an initial code (Charmaz, 2006); an open code (Corbin & Strauss, 2008) or a free code as it is named in NVivo. An extract of my initial or open coding process as completed in NVivo is depicted in Figure 77 in Appendix B for further information.

During the process of conceptualisation, theoretical sensitivity is important in order to give theoretical insight into the area of research. Theoretical sensitivity will by nature be influenced (limited or enhanced) by the extent of the researcher’s prior experience and qualification in the field of study. Theoretical sensitivity allows the researcher to continuously develop categories and hypotheses from the data. These are captured in memos during the process. In this regard, Glaser and Strauss (1967, p. 46) stated that “[a] discovered grounded theory, then, will tend to combine mostly concepts and hypotheses that have emerged from the data with some existing ones that are clearly useful.”

An example of how I applied theoretical sensitivity during the formulation of my initial codes is illustrated in the following example:

- **Data Fragment:** “A top Manager to solve the problems or to make change on the project : Learns through a group; Contributes from his experiences to a group....”
- **Code:** Managers learn through social discourse

In the above example, I abstracted the code from time by not referring to learning at a particular time (solving problems or changing projects). Theoretical sensitivity assisted me in capturing the social process as learning through social discourse.

At completion of the first data analysis process, I identified 777 initial codes that I felt were appropriate to use as guiding categories to code the remaining data. A screenshot of the NVivo page reflecting these initial codes are included in Figure 78 in Appendix B. I however did not complete the initial coding process without facing several challenges. I will discuss these challenges in the next section.

### 3.3.3 *CHALLENGES DURING THE FIRST EVOLUTIONARY STAGE*

One of the first challenges encountered during the start of the initial coding process was the magnitude of data that had to be analysed. It would have been extremely difficult to analyse all the data without a suitable software package. Reviews of available products lead to the identification of NVivo as a suitable Qualitative Data Software programme that could assist with data treatment and the coding process. NVivo is a code-based theory builder that allows the researcher to code, develop higher and lower level classifications and categories, explore relationships between categories and keep memos. NVivo however does not develop theory for you. I critically assessed NVivo's ability to facilitate the coding process, to ensure that I would have the freedom to conceptualise and develop proper grounded theory codes, whilst also giving attention to levels of abstraction as the categories started to emerge. Screen shots of the coding process in Nvivo are included in Appendix B for reference.

There are however valid concerns regarding the use of software for qualitative data analysis. Denzin and Lincoln (2000) stated that the very ease with which one can analyse data whilst using software, has the danger of making the researcher think less during the interrogation of the data. In this instance, the researcher will not develop meaningful categories that accurately represent the data. This may result in falling back to QDA as opposed to developing grounded theory codes. Glaser (2002, p. 2) warned that researchers who do not have the ability to conceptualise often turn to software to "engage in rote sorting based on forced, received categories."

It also took time to familiarise myself with the software and to eventually increase the speed at which I could do the coding. I also had to ensure that the grounded theory process is not compromised due to a too rigorous reliance on the software. It took a while to become familiar with the structure of the data in NVivo and to use the software in general. The first few days of the coding process were therefore much slower and the process was stopped and restarted on two occasions due to being unfamiliar with the use of NVivo.

Another key challenge during the initial coding process was to ensure that coding remains close to the data without inferring previously known categories. Whilst attempting to remain close to the data, it was also a challenge to construct short codes as suggested by Charmaz (2006), whilst simultaneously attempting to phrase the codes as action or processes.

This first coding process to some extent felt like a wrestling match with data that at times threatened to overwhelm me due to the extent of data I had. At other times, the pure mental effort in formulating the initial codes from the data was enough to leave one exhausted. In the next section, I will explain the second evolutionary stage by further indicating how the initial codes contributed to the conceptualisation of the core category.

### 3.4 SECOND EVOLUTIONARY STAGE: FOCUSED CODING

At completion of the first evolutionary stage, I managed to identify a significant number of initial codes that I could use for further coding. At this stage, I had a much better idea of the data gap and what further data I would require in order to solve my research problem. I therefore used theoretical sampling to gather further data that I could use during the second evolutionary stage aimed at focused coding.

#### 3.4.1 *EMERGING MYSELF IN GATHERING FURTHER DATA*

The first theoretical sampling process focused on gathering data through participant observation in my work context. Participant observation commenced whilst I was still busy with the analysis of the first data set. I was therefore simultaneously gathering data and analysing data. This enabled me to focus my data gathering efforts through participant observation in order to fill the gaps identified in the emerging categories. The analysis of the data gathered through participant observation was however only conducted on completion of the analysis of the textual data. The reasoning for this approach was to ensure that my personal perspective of the learning does not influence the development of the codes resulting from the analysis of the students' assignments.

Participant observation requires immersion in the research context, this method of data gathering was therefore ideal given my role as the academic co-ordinator and systems thinking lecturer on the programmes. I was already immersed in the research context and had the opportunity to interact closely with the students on the programmes. In accordance with a classification developed by Gill and Johnson (1997), I was a participant as observer, which implies that the research participants were aware of the fact that I was conducting fieldwork for the purpose of this study. I was however also a participant in the learning process, although not in the same capacity as the students.

Participant observation took place on several levels. In the first instance, I recorded primary observations made based on how students' interaction with fellow students changed or in the manner in which they participated in class. These observations were focused on identifying learning areas. The second level of observation focused on secondary observations based on statements made by other lecturers who came into contact with the class. This level of observation also included comments made by students on their personal development. During the process of assessing student assignments, I could also identify and record observations about improvements in the students' management practice. Observations were classified in terms of the above types, and date and time stamps were provided during the recording of field notes.

All observations were recorded in a field diary that was incorporated into the MS Access database that I developed during the early stages of this study to gather data for the development of the conceptual framework. (See Figure 69 in Appendix A).

My biggest challenge with participant observation was the ability to record the observations as soon as possible. It was not possible to stop the facilitation of the learning process in order to record an observation. It therefore often occurred that observations were recorded the evening after the event and some of the detail of the observation may have been lost. In fact, the majority of the observations had to be recorded after the event. This was the most problematic issue regarding participant observation. To try to overcome this, I carried a field journal and attempted to record a brief summary of the observation as soon as there was a break in the learning process. This was however also not always possible due to interactions with students during break times.

### 3.4.2 *FORMULATING TENTATIVE CATEGORIES*

All notes compiled through participant observation were consolidated and made up ten typed pages. These pages were analysed line-by-line to identify new codes. Constant comparison was done with the existing 777 codes resulting from the first data collection and analysis process. The analysis of the data gathered through participant observation did however not reveal any new codes that could be added to the 777 codes that were already developed. Additional data could however be added to some of the existing codes to re-enforce the categories that were emerging from the data. I therefore decided not to have another data gathering cycle, seeing that there seemed to be sufficient data to justify the current initial categories that were developed.

Due to the extent of the first data set (textual data), there was a significant degree of confidence that the data was sufficient and that no further data was required to be gathered at this stage of the coding process. A review of the initial codes did not reveal any obvious gaps in the data at this time and therefore the coding process was advanced towards focused coding.

During the focused coding process, I made comparisons between codes and data to ensure a good fit with the data. The focused coding process was aimed at identifying those categories that most suitably represent the data. It was therefore required to reduce the initial 777 codes to more comprehensively developed categories. The focused coding process was aimed at reducing the tentative categories identified in the initial coding process by comparing categories with each other and developing higher-level categories that included sub-categories. Glaser (2002, p. 2) referred to this process in grounded theory as “the generation of emergent conceptualizations into integrated patterns, which are denoted by categories and their properties.” The development of categories is achieved through the constant comparison process.

During the initial and focused coding process, memoing was also used to capture thoughts and ideas as they emerged. This process was aimed at formulating a higher level category with the identified dimensions associated therewith, as well as to formulate sub-categories. The formation of the labels for the categories at

this stage was for the generic labels. It was decided to enhance the accuracy of the labels developed during the theoretical sampling process to ensure that the categories resonated with the context and had ‘enduring grab’ (Glaser, 2002).

The initial category that I identified earlier (Students are more aware of how they behave in the workplace and how it affects their management practice) was categorised with similar initial codes to form a new category that I phrased as – ‘Students' level of emotional intelligence increases and they become aware of how their actions impact their practice, and stakeholders’. This step in the focused coding process is depicted in the diagram below.

458	<b>Students' level of emotional intelligence increases and they become aware of how their actions impact their practice, and stakeholders</b>
459	Students identify and change destructive behaviour in themselves
460	Management development programme enhances insight into behavioural patterns
461	Management development programme is an ongoing process of self examination
462	Change - Students gain confidence due to the management development programme
463	Students are aware the consequences of their decisions
464	Effective Managers follow through on actions to avoid embarrassment to the organisation
465	Emotional Intelligence - Managers control their behaviour
466	Emotional Intelligence - managers evaluate their own emotional intelligence
467	Students are aware of the effects of changing their management practice
468	<b>Students are more aware of how they behave in the workplace and how it affects their management practice</b>
469	Students are more aware of their own behaviour
470	Students become aware of how their behaviour can affect the ethics of the company
471	Students identify communication as a behaviour to change
472	Students recognise how being mindful can positively affect their behaviour
473	Students understand how personal behaviour influences environment and ultimately value creation

FIGURE 21. SCREENSHOT DEPICTING ONE OF THE INITIAL CODES AND RESULTANT HIGHER-LEVEL CATEGORY

The diagram above depicts the initial code (Red circled) in relation to the higher-level category (Blue circled) that was developed by grouping similar initial codes together. The higher-level category formulated includes the various elements of the codes that it represents. This category has now being elevated by another level of abstraction.

A significant challenge during the focused coding process was to constantly remain true to the data and not to let personal experience of the academic and learning process influence the formulation of codes, but rather to let it enhance the ‘conceptual grab’ of the formulated categories. The focused coding process took place over a period of three weeks, with start-stop progress and it was found that conceptual categories previously formulated were often changed on further reflection.

Throughout the coding process, constant comparison was used to compare data with data and thereby starting to recognise data that belonged under the same initial code, as well as to make a distinction between data that had to be developed into new codes. Sequential comparisons were also made between assignments that were completed in the beginning of the programme and those that were completed in the latter parts of the programme.

The constant comparison method enabled the identification of repetition in the data and as soon as a significant number of initial codes were conceptualised and it was felt that sufficient repetition was starting to emerge in the data and the codes were therefore raised to form the first tentative categories. At completion

of the focused coding process, 58 categories were identified. The 58 categories that were conceptualised at this stage could be taken forward for theoretical sampling and concept formation. I will explain this last step in the process of conceptualising categories in the next section. An extract from NVivo depicting the formulated categories is depicted in Figure 80 in Appendix B.

The 58 categories that I developed at this stage were however too many categories to fully conceptualise the causal mechanism that created the phenomenon of interest. These categories were at this stage still tentative categories and I had to ensure that they had 'enduring grab' and a good fit with the research context. I therefore completed a final round of theoretical sampling and engaged in concept formation to develop the final categories that will represent the variables in the real world that create the phenomenon of interest. This process will be explained in the third evolutionary concept presented in the next section.

### 3.5 THIRD EVOLUTIONARY STAGE: CONCEPT FORMATION

The third evolutionary process included a final round of theoretical sampling aimed at confirming the tentative categories and ensuring that it resonates with the research context. This stage was the final stage in the development of the categories that lead to the identification of the emerging key variables and core category. This process will be explained in the following sections.

#### 3.5.1 *ENSURING CATEGORIES HAVE 'ENDURING GRAB'*

At this stage of the process, it was important to ensure that the final categories that I develop sufficiently represent the phenomena that I observed. These categories would represent my interpretation of the variables (or entities as referred to by Bhaskar (2008)) in the real world, that are producing the conceptual change in the management cadre of AGA. The categories therefore have to fit the data and resonate with the research participants – they must have enduring grab (Glaser, 2002).

The third and final data collection process took place during theoretical sampling and was aimed at completing the concept formation process. Semi-structured interviews were conducted with key research participants. The interviews were aimed at refining the key categories that were identified during the analysis of the data gathered in the first two data collection phases. The first focus of the interviews was to test how well the categories resonated with the research participants in order to determine if they represent the research context accurately. This discussion was facilitated around the naming of the key categories that were developed and to identify any gaps in the total sum of categories identified.

The second focus of the interviews was to further develop the categories in terms of their dimensions and properties. This discussion focused on understanding the dimensions of each category and identifying possible new properties of each category.



### 3.5.2 DEVELOPING CATEGORIES THAT HAVE THEORETICAL SUFFICIENCY

Given my ontological stance, I did not aim to saturate my categories, as this would contradict my critical realist stance and would be an unrealistic claim (Fleetwood, 2011). As indicated before, I will therefore rather focus on 'inference to the best explanation' (Haig, 1995) by developing my categories to such an extent that they provide the best possible explanation of the causal mechanism that created the conceptual change that I observed.

The concept formation process, focused on the identification of higher-level categories and their associated dimensions. The concept formation process drew on the literature regarding concept analysis (Penrod & Hupcey, 2005; Walker & Avant, 1995) and it was therefore deemed useful to develop categories in terms of their antecedents, consequences, properties and characteristics. The identification of antecedents and consequences would in addition assist during the process of hypothesising relationships between the categories.

Concept maps (Institute for Human and Machine Cognition [ihmc], n.d.) were used as a visual tool to represent the conceptual categories and develop well-formulated high-level categories that depicted the most appropriate categories that define the conceptual change that occurred in the participants and the key factors that enabled this change to occur. The concept mapping process focused on identifying those categories that should actually be dimensions of a higher-level category that was already identified, as well as to identify those categories that could fit under a new broader category as dimensions of that new concept. Reduction of the categories was essential in order to determine the primary social processes and/or core variables that provide an explanation of the social phenomenon studied. The concept mapping process enabled the reduction of the initial 58 categories into five core categories that will be advanced to the theory building process. A snapshot of the concept mapping process is depicted in Figure 81 in Appendix C for illustrative purposes.

The diagram below depicts the conceptualisation of the initial category that I identified earlier and illustrates it in relation to the tentative category that I developed prior to the concept formation stage. This consolidation of codes and categories was derived from the concept mapping process and was aimed at developing a tree diagram of all the codes and categories.

448	<b>Students Experience a Personal Transformation</b>
449	Students are equipped to deal with divergent opinions in order to diffuse potential social discord
458	<b>Students' level of emotional intelligence increases and they become aware of how their actions impact their practice, and stakeholders</b>
459	Students identify and change destructive behaviour in themselves
460	Management development programme enhances insight into behavioural patterns
461	Management development programme is an ongoing process of self examination
462	Change - Students gain confidence due to the management development programme
463	Students are aware the consequences of their decisions
464	Effective Managers follow through on actions to avoid embarrassment to the organisation
465	Emotional Intelligence - Managers control their behaviour
466	Emotional Intelligence - managers evaluate their own emotional intelligence
467	Students are aware of the effects of changing their management practice
468	<b>Students are more aware of how they behave in the workplace and how it affects their management practice</b>

FIGURE 22. SCREENSHOT DEPICTING ONE OF THE INITIAL CODES, HIGER-LEVEL CATEGORY AND FINAL CATEGORY

The diagram on the previous page depicts the initial code (Red circled) in relation to the higher-level category (Blue circled) and the final tentative category (green circled). The above process indicates how the conceptualisation process raised the level of abstraction three times during the concept development and formation stage.

The process of abstracting codes, conceptualising categories and developing higher-level categories however did not take place without any challenges. In the next section, I will explain the challenges that I experienced with this process.

### 3.5.3 *CONCEPTUALISING THE VARIABLES IN THE REAL WORLD*

The research problem for this paper was to define the conceptual change that occurred in the management cadre of AGA and thereafter identify the causal mechanism that created this change. In the grounded theory process, I gathered data in the empirical and actual worlds. The data that I gathered in the actual world was the assignments of students that allowed me to analyse the written reflections of students about their learning process. This data set was extensive and allowed me to conceptualise the change that occurred in the managers of AGA. It also allowed me to some extent to identify some of the underlying factors that the students identified, that led to this change.

In order to obtain another perspective of the research context, I gathered additional data in the empirical world through participant observations. Participant observation gave me a second perspective on the research context and allowed me to develop categories that also had theoretical sensitivity. The final data gathering stage was aimed at determining if the categories resonated with the research participants. I therefore gathered additional data in the actual world through interviews. These interviews were aimed at closing any gaps in the data as well as to ensure that the categories that I develop have enduring grab and a good fit with the data.

A difficulty during the reduction sampling process was to make a distinction between the various properties and characteristics of concepts due to the richness of data gathered in this process. It was extremely difficult to integrate and make a distinction between antecedents and consequences of the various concepts. This process did however eventually allow for the identification of five key variables that were taken further in the concept development process.

After the development of the concept maps, the concept modification process was continued with specific focus on theoretical coding to enable concept modification. Drawing on theoretical coding provided direction and reference to earlier memos as well as the development of new memos which enabled me to concretise thoughts and abstractions related to the emerging theory. Theoretical coding in addition allowed for the examination of data in theoretical, rather than descriptive terms, at this final conceptualisation stage to determine the key emerging categories. Each final category that was developed was first conceptualised in a concept map. An example of a concept map and definition that was developed for one of the categories is

included in Appendix C. In the next section, I will provide an explanation of each one of the variables that were conceptualised from the data that I gathered.

### *The Core Category – Extent of the transformative learning experience*

The conceptualisation process of the emergent categories was focused on identifying the key variables in the real world that created the causal mechanism that generated the phenomenon that I studied. In the process of identifying the conceptual change that occurred in the managers, I found rich data that clearly linked to the anticipated learning goals of the programme. I identified significant evidence that illustrated that the managers developed key managerial skills and practices as stipulated in the programme outcomes. This evidence led me to believe that the assumption that I made prior to commencing this study about the appropriateness of the design of the programme to achieve the desired learning outcomes could be taken as a fact.

Confirming that the management development programme achieved the desired goals was however not a significant contribution towards explaining the full extent of the conceptual change that occurred in the managers. The phenomenon and change in behaviour that I observed led me to believe that there was a much more significant dynamic that occurred to change the management practice of the students.

This awareness guided me in the conceptualisation process that led to the development of the core variable that emerged in the grounded theory process. Some (there are several more that contributed to the formulation of the core variable) of the key categories that guided my thinking in the development of the core variable include:

- Students practice self-restraint to manage situations effectively
- Students are aware of the consequences of their decisions
- Management development programme enhances insight into behavioural patterns
- Co-creation of self in the context of the organisation's ethos
- Students are equipped to deal with divergent opinions in order to diffuse potential social discord
- Increased mindfulness makes students more sensitive to cues in their environment
- Students' level of emotional intelligence increases and they become aware how their actions impact their practice, and stakeholders

My analysis of the above categories, as well as reflection on relevant theories indicated that there seems to be an underlying social process relating to a personal transformation as a result of the learning process. It would appear as if the learning process to some extent aided in the facilitation of transformative learning. The learning process therefore assisted AGA in developing managerial behaviours and practices that resonated with the organisation's social structure, but in return also developed managers that could mould the structure to be better suited to achieve organisational goals and objectives. The core variable that I therefore

conceptualised as a result of the identification of this social process is: ***Extent of the transformative learning experience***

I found this variable to be significant in the context of my study, given that all management development is aimed at developing management skills and competencies that are appropriate to the organisation and could assist the organisation in achieving its strategic objectives. It is therefore imperative that the personal transformation experienced by the students is aligned with the training goals of the organisation. What makes this concept unique is that this transformation is shaped within the ethos of the organisation (the structure). This implies that the learning process has the ability to affect personal transformation in students who fully engage the learning process.

The transformative effect of the learning process was conceptualised from evidence as the following quote depicts:

*"I was afforded an opportunity to share the role and intentions of my department with Exco at their weekly meeting, last week. The invitation was 'spur of the moment' and so left no time for planning of any sort. I walked away with pride because I felt confident enough to sit at an impromptu meeting and answer every question aimed at me. The feedback given to me after the meeting was extremely positive and I credit my success to the knowledge gained not only about myself, but about business, to PGDIP. The feeling of empowerment is a strong one, and immediately boosted my self-image."*

This core variable explains most of the other variables and social processes that I identified that form part of the causal mechanism that generated the observed phenomenon. The next phase of my conceptualisation process was to identify the variables that interact with the core variable and contributed to this conceptual change.

The next category that I developed was a key outcome of the learning process. Even though this category was one of the learning outcomes of the programme, the significance of this category as a variable in the causal mechanism that generated the phenomenon led me to highlight it as a key category.

### **Cognitive Flexibility**

In the context of this study cognitive flexibility was one of the key elements of the conceptual change that occurred. This category related to the students' ability to comprehend new concepts and integrate learning into their management practice. Significant evidence was found of the realisation that engagement led to learning. The following quote illustrates this point:

*"I know that I can do a great job as the Operations Manager and I feel this is what I have been waiting for. I've grown as a leader, as a manager, as a person. I have achieved this through my PGDip programme but mainly through APPLYING what I have learnt. "*

Cognitive flexibility is a key element in assisting AGA to develop a management cadre that could deal with the complexities that they face in their environment. The increase in cognitive flexibility has a significant impact on the student's personal development. Of significance for this study, the impact on communication skills was most relevant in order to harness support networks. The student's ability to communicate is central to their ability to harness support networks that will enable them to engage their studies. The link between cognitive ability and communication skills is illustrated in the following student quote:

*"I attribute my success to the knowledge gained on PGDip, modules one and two, which has enabled me to think and act on a more strategic level..... I now find myself being able to share without arrogance and with mindfulness, resulting in my ability to influence others, improving. This has vastly improved communication with all that I engage with."*

This category explains the key conceptual abilities that were developed as well as the impact of increased conceptual abilities on predominantly communication skills through understanding multiple perspectives. Some of the codes and categories that guided my process of conceptualising this category include:

- Being open to new ideas from various sources
- Being open to innovative thinking
- Encouraging creativity and experimentation
- Being aware of boundary judgements
- Being able to deal with complexity
- The ability to identify relevant information
- Giving attention to validity of data used
- Understanding concepts
- The ability to categorise relevant information
- Being able to construct valid arguments
- Analytical and logical thinking skills

Further quotes that support this category includes:

*"I learnt that it is the key to command our feelings and desires and to change any of my feelings I have to change the thinking that leads to the feeling and to change a desire is to change the thinking that underlines the desire. It was an insight to learn that situations, problems, etc, etc do not correct themselves, they change only through the thinking that underlines them."* AK; IMDP4; RP

*"Thinking systemically about my tendency to lean heavily on my colleagues for simple answers to complex questions requires that I examine both what type of circumstance results in this behavior and what structures are in place that consistently make this my chosen course of action. Addressing both aspects of the problem will facilitate sustainable change."* MC; MDP1; PP

The next category that I formulated was influenced by the evidence I found that indicated that students develop courage to take actions in their organisation.

### *Social Astuteness*

Social astuteness was identified as a key element of the conceptual change that occurred in the management cadre because of the management development programme. The significance in this category is mainly centred in the ability of students to communicate more effectively in order to build and maintain good working relationships with stakeholders. Relationship management is strongly linked to conceptual ability and communication skills. It is aimed at building positive relationships, developing trust and creating commitment towards the organisation.

In the context of adult learning and especially experiential learning that was a key component of this programme, social astuteness could however be seen as a key component in a team learning process. Kolb states that for a team to learn from collective experience, it is required that a 'conversational space' be created in order for the team members to reflect on their collective experiences (Armstrong & Fukami, 2009). The results of this study and the key elements identified in this category indicates that managers developed better communication skills and are able to facilitate team development and learning in teams.

Social astuteness for the purposes of this study could be defined as the ability to understand people and their behaviour, through effective communication build, develop, and maintain trust in relationships that enable the manager to create a cohesive workplace that is conducive towards learning and the achievement of goals.

Key codes and categories that guided my thinking in developing this category include amongst others:

- Developing a culture of inclusion
- Building, developing and maintaining trust in relationships
- Being more receptive to information, that leads to:
  - Being more aware of multiple perspectives
  - Being able to prevent problems from occurring
  - Knowing when to change tack
  - Being aware of how changes in your management practice affect others
  - Increasing levels of mindfulness
- Harnessing diversity as a competitive advantage that results in involving workers in decision making that results in Motivated teams
- Understanding and Managing Teams
- Communicating ideas better
- Building better networks
- Understanding how your behaviour affects people that in turn assist with building good working relationships

### *Courage to Take Action*

Taking action results in learning and increases confidence that feeds back into personal transformation. It was determined that students have an increase in their courage to take experimental actions in order to create value for the organisation. The programme encouraged students to implement actions within a controlled environment.

Having courage to take action is a critical element in a management development programme that has an action research learning pedagogy. Should a learner not have the courage to implement the solutions that he/she developed, the action research learning cycle would be incomplete and the learning compromised. In this study, a significant aspect of the learning process was action learning based. Codes and categories that lead me to the development of this category include:

- Being able to confront uncertainty
- Being open to implementing new ideas
- Effective problem solving
- Monitoring outcomes of decisions made
- Effective decision making which includes:
  - Saying no when appropriate
  - Being assertive
  - Involving workers in decision making
- Harnessing diversity as a competitive advantage

The last category that I developed was also an outcome of the learning process, but was an essential component that assisted in explaining the dynamics that I observed. This category is social astuteness.

### *Concrete Experiences Created*

I found that students who engage the management development programmes, through the process of completing their action research assignments, created concrete experiences that contributed to their learning. This concept is closely linked to the courage to take action, in that students who developed courage to take action had the ability to create more concrete experiences that facilitated learning. Initial categories that led me to the development of this category included amongst others:

- Students implement actions to increase operational efficiency
- Assignments provide opportunities for students to address organisational problems
- Students implement the concepts taught
- Managers streamline activities to improve skills and enhance value creation

The above initial categories clearly capture the notion that there is implementation of actions to create value. Implementing the action plans create concrete learning experiences that in turn facilitate the learning process. In the next section I will conclude this chapter with a brief summary of the outcomes of the grounded theory process and how it contributed to my thesis.

### 3.6 CONCLUSION

In this chapter, the empirical research results were presented with reference to the three evolutionary stages that I followed in order to collect and analyse data that enabled me to conceptualise the key variables. The evolutionary stages illustrate how I firstly gathered data from student assignments, then gathered data based on theoretical sampling from participant observation and interviews.

The first evolutionary stage focused on identifying the first initial categories. These initial categories enabled me to focus the first theoretical sampling process on closing gaps in the first data set and initial categories. The initial categories that were identified were in addition used for further coding of the data. At completion of the first evolutionary stage, 777 initial categories were identified that started to capture the social processes that I observed in the data. This led to the second evolutionary stage.

In the second evolutionary stage, the initial categories were further developed through concept modification and formation. Through the application of concept analysis, the concept formation process focused on identifying antecedent, consequences and properties of each category. This process enabled me to reduce the initial categories to 58 tentative categories. These categories were however still not fully developed and I had to ensure that the categories sufficiently represented the social phenomenon that I observed.

The third evolutionary process was therefore aimed at fully developing the categories and ensuring that they have 'enduring grab'. A second theoretical sampling process through interviews was aimed at developing the final categories and ensuring that they resonated with the research participants.

The final categories that were developed are:

- Courage to Take Action
- Concrete Experiences
- Cognitive Flexibility
- Social Astuteness
- Extent of the transformative learning experience

A summary of the social dynamic that I observed could therefore be described as follows:

The managers that were successful on these programmes developed an increased level of social astuteness as well as a higher level of cognitive flexibility. The learning process had the ability to affect personal transformation and facilitated the development of managers within the organisational social structure. This



facilitated the co-creation of managers within the ethos of AGA that were appropriate for the organisation in terms of its management development needs. The programmes in addition developed the manager's courage to take action in their organisations through the engagement of the learning process. Taking more action in the organisation contributes towards the managers' learning that could increase their ability to develop effective action strategies.

In order to fully answer the research question, the variables must be taken forward into the theory building process. Theory building can however only take place once the variables were positioned within the relevant body of knowledge in the literature. In the next chapter, the literature review will be presented with an emphasis on the parent discipline, the key concepts in the research problem, as well as attention to the key categories identified in this chapter.

## 4 LITERATURE REVIEW

In the previous chapter, I presented the empirical research results with reference to each step in the grounded theory process. It was determined that the managers who were successful on the management development programmes had an acceptable level of learning readiness as well as the ability to manage their own learning. This enabled them to engage the learning process appropriately. Through engagement of the learning process, the managers developed courage to take action in their organisation that led to an increase in concrete experiences that form the basis of reflection and learning. This process resulted in a transformative learning experience that increased cognitive flexibility and social astuteness and thereby further drove the managers' ability to manage their own learning.

In this chapter, I will present the literature review by reviewing the parent discipline, the key concepts in the research problem as well as the key categories that I identified as a result of the grounded theory process. The purpose of this chapter is to locate the core categories study in the relevant body of knowledge in order to achieve theoretical advancement of the categories. It would also enable me to identify the theoretical contribution that I can make through this study within the parent discipline.

### 4.1 INTRODUCTION

Traditionally the literature review aims at building the theoretical foundation on which to base the research. A review of the literature therefore focuses on identifying either controversial issues or unanswered issues that could be worth researching as part of the thesis (Perry, 1995). The literature in this regard aims at identifying the research issue and it clearly indicates the knowledge gap at the outset of the thesis.

The use of literature in grounded theory is however a much-contested issue. In a grounded theory study, it is not a pre-requisite to review the whole field of literature beforehand; in fact, there are authors who firmly believe that the researcher should enter the field having being influenced as little as possible by current literature in the field of study. This is to ensure that existing theories do not influence the study, but that the theory is allowed to emerge from the data. Glaser and Strauss (1967) indicate that the literature review should only be conducted once analysis is complete. This to avoid looking at the data through the lens of existing theories and concepts in literature.

I adopted this grounded theory approach towards the literature review for my study and therefore only conducted the literature review after I identified the emerging key concepts. In the next section, I will explain my approach towards the literature review in more detail.

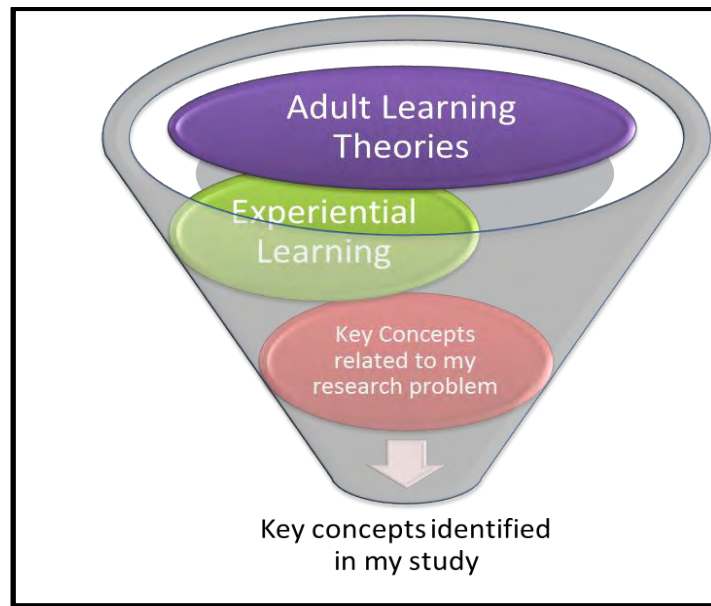
## 4.2 APPROACH TOWARDS THE LITERATURE REVIEW

I used literature in three ways in this study, namely:

- In the first instance, I used technical literature as a source for making comparisons during the research process. This is consistent with Corbin and Strauss' (2008) interpretation of the use of literature in grounded theory.
- Secondly, I used literature to enhance sensitivity. According to Corbin and Strauss (2008) the researcher may encounter the same concepts repeatedly in the data as well as literature. This could be an indication of the significance of the concept. If such a concept is found, the researcher needs to ensure that the concept is derived from the data and that it is not imposed from the literature. Concepts like these that were found were further explored in order to identify how this concept differed from the concept found in the literature.
- In the last instance, I used literature to confirm my findings and assist with the theory development process. I therefore only identified the body of knowledge towards which this study is contributing, after I developed the theoretical framework for my study. This is consistent with Locke's (2001) interpretation of the approach towards literature in grounded theory.

I conducted the formal literature review on three levels through a progressive review of key concepts delving lower in levels of abstraction. The broad area of knowledge within which my study is located is adult learning. I therefore found it useful to review the literature on adult learning in order to identify the specific learning theories that resonated with my studied phenomenon. During this review, I identified Experiential Learning as an appropriate parent discipline for my study. The next focus of my literature review was to identify which aspects of experiential learning were specifically relevant to my study. During this process, I specifically focused on the key concepts in my research problem and question. This allowed me to narrow the field of experiential learning down further in terms of my research focus.

The last focus area of my literature review was to locate my key concepts that I identified through the Grounded Theory process within the experiential learning literature. This last aspect of the literature review was critical in order to determine the theoretical contribution that I could make through my study. My approach towards the literature review is graphically depicted in Figure 23 on the next page.



**FIGURE 23. APPROACH TOWARDS THE LITERATURE REVIEW**

In the next section, I will provide a brief introduction and overview of adult learning and learning theories, aimed at crystallising the parent discipline of my study.

#### **4.2.1 INTRODUCTION TO ADULT LEARNING**

The management development programmes that were the focus of my study take place at a formal higher education institution. The design of the programme however facilitates learning during physical contact periods at the institution, as well as a continued learning process within the student's workplace. The design of the suite of assignments therefore facilitates workplace learning in addition to formal classroom learning. Defining adult learning on these programmes can therefore not be compartmentalised into one specific type of learning.

In this regard, Merriam et al (2007) indicated that adult learning is a 'large and amorphous field of practice'. Adult learning cannot be neatly organised into different fields like elementary, secondary or higher education. In addition, the goals of adult learning are very divergent and learning can take place in many different settings, including formal educational institutions, non-formal learning institutions, informal learning, on-line or within organisations. Adult learning can therefore be defined as any type of learning that an adult engages in beyond his/her formal schooling.

Brookfield (1995) in a similar vein attested that attempting to develop a general theory of adult learning is a 'grave error', given that adults are largely self-directed in their learning and that the educational process, regardless of the design thereof, will always meet the needs of the learner him/herself. Illeris (2009, p. 3) developed a very broad definition of learning and concluded that learning is 'any process that in living organisms leads to permanent capacity change and which is not solely due to biological maturation or ageing'

Merriam et al. (2007) proposed that one way in which to understand the field is to study who participates – the adult learners. In this regard, Merriam (2001, p. 5) attributed the following five factors to describe an adult learner:

- An adult learner has an independent personality and can direct his/her own learning;
- An adult learner has accumulated significant life experiences that contribute to learning;
- An adult learner's learning needs are closely related to the learner's changing social role;
- An adult learner has a keen interest in knowledge that is immediately applicable and learning that could assist with problem solving; and
- An adult learner's motivation to learn could be attributed to internal, rather than external factors.

Given the above characteristics, it is clear that an adult learner very much directs his/her own learning based on personal needs, as indicated by Brookfield (1995) earlier. One however needs to make a distinction between the learning itself, the design and facilitation of the learning process and where the learning is taking place. Merriam et al. (2007) state that learning is a process that is influenced by the environment within which the adult learner finds him/herself. This learning process is a personal process. Merriam et al further quote both Illeris (2000) and Ormrod (1995) who stated:

"Learning is a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and worldviews" (Merriam et al., 2007, p. 277). Adult learning can therefore be interpreted through gaining insight into the context within which it occurs (Merriam et al., p. 7).

The focus of my study is predominantly on the learning process itself – what happens when learning occurs, as well as where learning takes place. This study did not focus on the design and facilitation of the management development programme. Adult learning will therefore be interpreted mainly from the perspective of the learning process itself, but also taking the context within which learning is taking place into consideration. The next section will therefore focus on the literature review relating to the learning process.

#### 4.2.2 *ADULT LEARNING THEORIES*

Illeris (2009) presented a very useful diagram of the structure of understanding learning. This diagram could also provide significant insight into the approaches and formulation of the various learning theories. In his diagram he makes a distinction between the basis of the learning theory, the internal and external conditions impacting on the learning process, the learning itself, as well as the applications of learning. This diagram is depicted in Figure 24 on the next page.

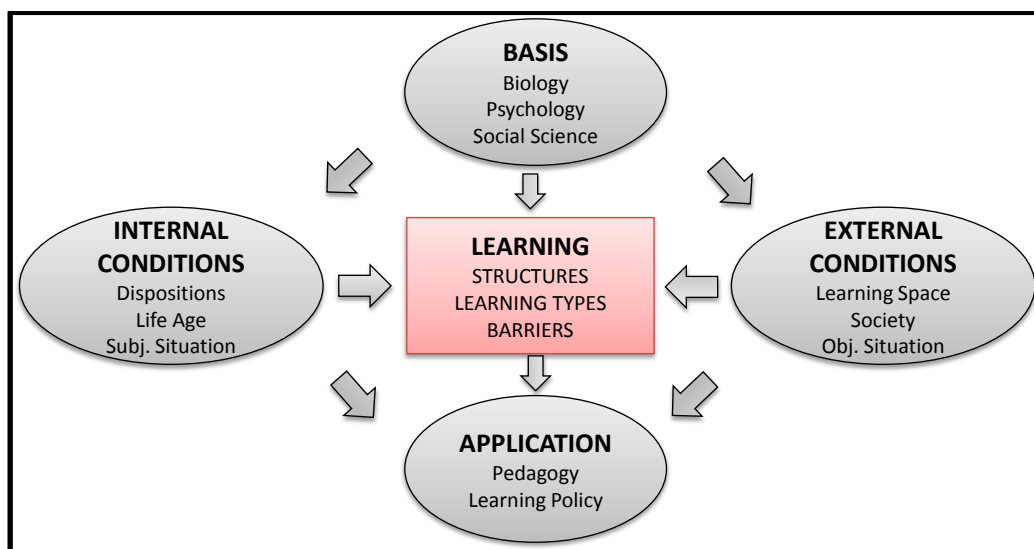


FIGURE 24. THE MAIN AREAS OF THE UNDERSTANDING OF LEARNING (ILLERIS, 2009, P. 8)

According to Illeris (2009), all learning integrates two processes, namely the external interaction between the learner and his/her environment, as well as the internal psychological process of knowledge acquisition. These two processes are depicted in the diagram below. According to Illeris several of the known learning theories deal with only one of these processes.

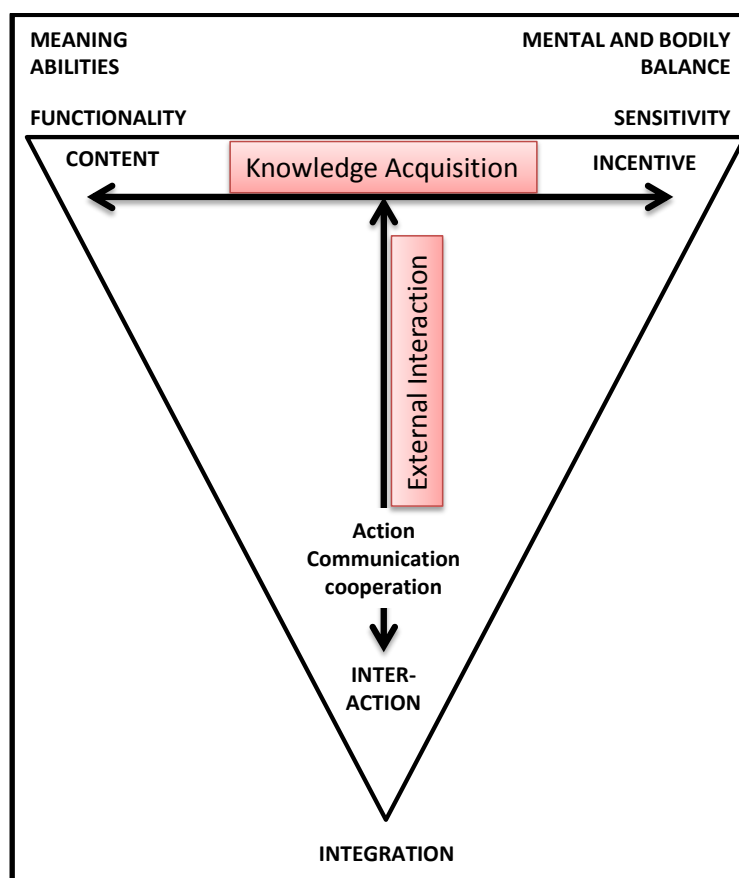


FIGURE 25. THE THREE DIMENSIONS OF LEARNING AND COMPETENCE DEVELOPMENT (AS ADAPTED FROM ILLERIS) (ILLERIS, 2009, P. 10)

In Figure 25, content refers to what is learnt, and incentive refers to what motivates the learner to learn. These elements are however not mutually exclusive, but continuously influence each other. In relation to the above diagram, Illeris (2009, p. 14) made a distinction between four types of learning:

- Cumulative or mechanical learning;
- Assimilative or learning by addition;
- Accommodative or transcendent learning; and
- Personality changes or 'changes in the organisation of the self'.

I will use the above model developed by Illeris (2009) as a framework to consider the basis and focus of the main learning theories.

A learning theory essentially aims at describing how people learn. Merriam et al. (2007, p. 277) indicated that "Learning as a process (rather than an end product) focuses on what happens when the learning takes place. Explanations of what happens are called learning theories....."

There are numerous learning theories, each aiming at describing certain key elements relating to how people learn. Conlan, Grabowski and Smith (2003) identified the following learning theories that directly relate to adult learning:

- Action learning;
- Experiential learning;
- Project-based learning; and
- Self-directed learning.

Conlan et al. (2003) however also indicated that all styles of learning could relate to both adults and children with the difference therein based on the how the learning style is used in relation to the learning environment.

The above list of learning theories is therefore insufficient in terms of defining the full scope of possible adult learning theories. Further analysis of the vast array of learning theories revealed that different authors seem to group the learning theories according to different classifications. One such approach is from Merriam (2007) whom identified five basic approaches, namely behaviourist, humanist, cognitivist, social cognitive and constructivist. I developed an adapted framework for the identified learning theories and consolidated the key elements of each approach therein. This table is presented on the next page.

**TABLE 2. LEARNING APPROACHES AND THEORIES**

The following table is a summary of key learning approaches and theories as adapted from the following sources: Illeris (2009); Kilgore (2001); Learning Theories.com (n.d.); Behaviorist (2013); Merriam, Caffarella, & Baumgartner (2007); Orey (2001)

	Basic assumptions	Orientation towards learning and Locus of control	Critique	Key Theorists and Theories	Adult learning Theories/approaches
Behaviourist	<ul style="list-style-type: none"> <li>Learning is identified as a change in behaviour.</li> <li>The environment shapes behaviour</li> </ul>	<ul style="list-style-type: none"> <li>Learning is aimed at behavioural change in a desired direction</li> <li>Stimuli in external environment is the main locus of control</li> <li>Focuses on the internal behaviour of the learner, rather than the thought process</li> </ul>	<ul style="list-style-type: none"> <li>Does not consider social elements of learning.</li> <li>Favours particular types of learning above others, therefore assumes all adult learners learn the same</li> <li>does not encourage intrinsic motivation in the learner, but rather focuses on a conditioned response.</li> </ul>	<b>Classical Conditioning: Stimulus/Response:</b> Ivan Pavlov - Classical Conditioning Theory, <b>Behaviorism: Stimulus, Response, Reinforcement:</b> John B. Watson - behaviourism Edward L. Thorndike - Connectivism Edwin Guthrie - Contiguity Theory B.F. Skinner - Operant Conditioning <b>Neo-behaviorism: Stimulus-response, intervening variables purposive behaviour:</b> Edward C. Tolman - Sign theory and latent learning Clark Hull - Drive reduction theory	Behavioural philosophy mainly underlies adult career development and human resource development
Humanist	<ul style="list-style-type: none"> <li>“Human beings can control their own destiny”</li> <li>views learning as the human potential for growth</li> <li>“people are inherently good and will strive for a better world” (Merriam, Caffarella, &amp; Baumgartner, 2007, p. 282)</li> </ul>	<ul style="list-style-type: none"> <li>Learning is a personal journey to fulfil self-development – to become self-actualised, mature, autonomous</li> <li>Affective and developmental needs are the locus of control</li> <li>focus on the process of knowledge acquisition</li> </ul>	<ul style="list-style-type: none"> <li>Does not sufficiently consider all the structural elements in constructing meaning and knowledge</li> <li>Could be too concerned with single events and actions</li> <li>does not ascribe to the notion that the environment influences what a person learns</li> </ul>	Abraham Maslow - Humanistic Theory of Learning) Carl Rogers - Experiential Learning Jack Mezirow - Transformational Learning Malcolm Knowles - Adult Learning Theory	Andragogy, Self-directed learning, Cognitive development, Transformational Learning
Cognitivist	<ul style="list-style-type: none"> <li>The memory system is an active organised processor of information</li> <li>Prior knowledge plays an important role in learning</li> <li>Learning as a mental process</li> </ul>	<ul style="list-style-type: none"> <li>Learning focus on developing capacity and skills to learn better</li> <li>Looks beyond behaviour to explain brain-based learning – information processing (including insight, memory, perception, metacognition)</li> <li>Internal cognitive structure is the locus of control</li> <li>Locus of control is centred with the individual learner as opposed to the environment</li> </ul>	<ul style="list-style-type: none"> <li>Does not include social elements of learning</li> <li>Does not provide a systemic view of learning (does not consider the whole)</li> </ul>	<b>Gestalt Learning Theory:</b> Kurt Lewin - Field Theoretical Approach J.P. Guilford - Structure of Intellect Howard Gardner - Multiple Intelligences Robert Sternberg - Triarchic Theory of Intelligence Robert Gagne - Conditions of Learning	Conditions of Learning, Gestalt Theory, Information Processing Theory, Multiple Intelligences, Schema Theory



	Basic assumptions	Orientation towards learning and Locus of control	Critique	Key Theorists and Theories	Adult learning Theories/approaches
Social Cognitive or situated	Interaction with and observation of others in a social context	<ul style="list-style-type: none"> <li>The purpose of learning is to learn new roles and behaviours – people learn from observing others</li> <li>Interaction of person, behaviour, environment is the locus of control</li> </ul>	<ul style="list-style-type: none"> <li>It separates observation from imitation (theory from action)</li> </ul>	Lev Vygotsky - Social Constructivism Albert Bandura - Observational Learning John Seely Bron - Cognitive Apprenticeship	Observational learning and self-efficacy, Assimilation Theory, Socialisation, self-directed learning, Locus of control, Mentoring
Constructivist	Construction of meaning from experience	<ul style="list-style-type: none"> <li>Learning is focused on constructing knowledge</li> <li>Individual and social construction of knowledge is the locus of control</li> </ul>	<ul style="list-style-type: none"> <li>Not all teaching techniques based on a constructivist approach are appropriate for all people</li> </ul>	<b>Constructivism:</b> Jean Piaget - Genetic Epistemology Jerome Bruner - constructivism Jean Lave - Situated Cognition Chris Argyris - Double Loop Learning Rand J. Spiro - Cognitive Flexibility David Kolb - Learning Styles Also: von Glaserfeld, P.C. Candy, Dewey, Lave, Piaget, Rogoff, Vygotsky, Marie Montessori, David Kolb	Piaget – Four stages of development Experiential learning, Transformational learning, Reflective practice, Communities of practice, Situated learning
Critical Perspective	<ul style="list-style-type: none"> <li>Knowledge is socially constructed</li> <li>Knowledge takes form in the eye of the 'knower'</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Knowledge is a logical outcome of well categorised interests</li> <li>knowledge is seen as fundamentally pluralistic and inconsistent</li> <li>Knowledge is contextual</li> <li>Knowledge is the outcome of human interests</li> </ul>	<ul style="list-style-type: none"> <li>Critical theory is explicitly political and states that knowledge serves the interests of particular groups</li> </ul>	Julian B. Rotter - Social Learning Theory Paulo Freire – Critical Pedagogy Jürgen Habermas – Theory of Knowledge; Critical Discourse Theory Also: Max Horkheimer, Theodore Adorno, W. I. Thomas, Elizabeth J. Tisdell	Social Learning Theory, Competence theories, Critical theory, Theory of Knowledge, Critical Discourse Theory
Postmodern Perspective	<ul style="list-style-type: none"> <li>Rationality and logic are not important in order to obtain knowledge</li> <li>Knowledge can be contradictory</li> <li>Knowledge is socially constructed</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge is tentative and multifaceted.</li> <li>Knowledge is not necessarily rational.</li> <li>It challenges theoretical perspectives that are neat and exclusionary</li> <li>All education is political, whether acknowledged or not</li> </ul>	<ul style="list-style-type: none"> <li>Some critique the quality of postmodern thought and writing</li> <li>Lack of attention are given to differences on power (eg race and gender)</li> </ul>	Michel Foucault - Bodies of knowledge; Also: Deborah W. Kilgore; R. Hollinger, M. Leicester, S Birden	Bodies of knowledge; Identities Theories

Given the vast array of learning theories presented above, Merriam et al. (2007) indicated that there are two main values of a learning theory. The first is that it helps us to identify and explain the different instances of learning that we observe. The next value is that it could assist us in looking for solutions to problems by identifying the key variables that could assist one in finding a solution. In my study, I was particularly interested in defining the learning theory that enabled some students to undergo a transformative learning experience, whereas other students do not seem to have the same experience. I am therefore interested in explaining the specific instance of learning that I observed. I am however in addition also interested in finding a solution to the research problem in that I need to identify the key variables that make up the causal mechanisms in the real world that enable this transformative learning experience to occur.

I therefore firstly need to identify the particular learning approach that resonates with the phenomenon that I observed and studied. It is useful to put the learning theories in contrast to Illeris' (2009) model of learning theories. This is depicted in Figure 26 below.

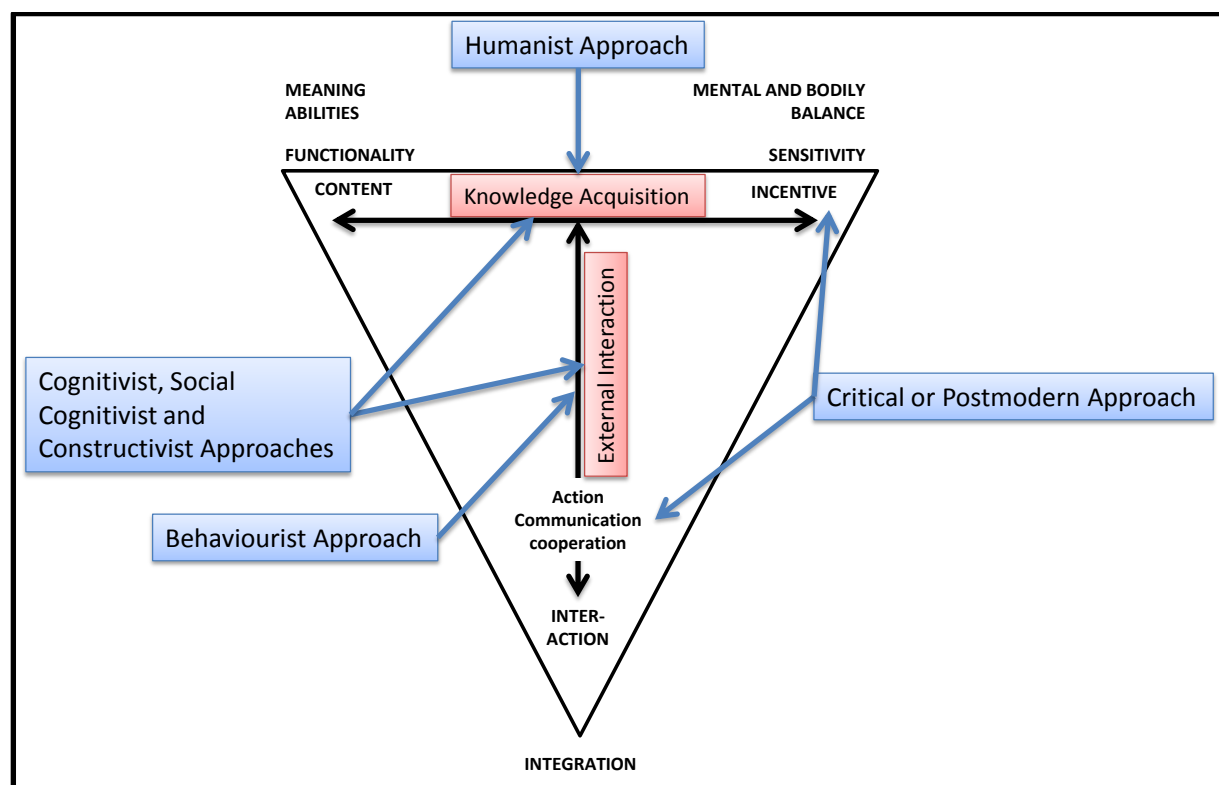


FIGURE 26. DIMENSIONS OF LEARNING AND LEARNING APPROACHES (AS ADAPTED FROM ILLERIS) (ILLERIS, 2009, P. 10)

In Figure 26 above, it is depicted that the behaviourist approach is mainly focused on the external interaction process. It will therefore not provide significant insight into the knowledge acquisition process. Should I therefore use this approach as a lens to review my phenomenon, I would miss a vital element of the learning process. The same could be said of the humanist approach that mainly focuses on the knowledge acquisition process. This in turn will give me good view of the knowledge acquisition process, but would not provide insight into the external interaction process. The critical or postmodern approach focuses on how knowledge

is created, but the belief that knowledge is tentative does not resonate well with the nature of the management development programme. I therefore need to focus on the cognitivist, social cognitivist or constructivist approaches to learning as a lens to review my phenomenon.

One of the key criticisms of the cognitivist approach is however that it does not provide a systemic view of learning as it does not consider the whole. It also does not include social elements of learning. These aspects are deemed relevant to my study and I therefore decided to also eliminate the cognitivist approach to learning as an appropriate lens. The social cognitivist approach could plausibly be more appropriate in that it eliminates the criticism against the cognitivist approach relating to the social elements of learning. A key criticism that however does not assist in making this approach appropriate for my study is that the social cognitivist approach separates theory from action.

It would therefore appear that the constructivist approach is most suited to use as a lens to view my studied phenomenon. This is due to the following key factors:

- The basic assumption is that people construct meaning from experience. This is a key element of the underlying pedagogy of the management development programmes.
- Learning is focused on constructing knowledge
- The individual and social construction of knowledge is the locus of control
- The constructivist approach in addition resonates with my worldview.

I therefore narrowed my approach towards identifying the parent discipline within the constructivist learning theories. Prominent adult learning theories within the constructivist approach are experiential learning, transformational learning, reflective practice, communities of practice and situated learning.

The design of the management development programmes is very strongly based on action learning. I therefore need to select an adult learning theory that clearly incorporates learning from experience. The most obvious learning theory that within the constructivist approach that has a strong action learning element is experiential learning. I therefore identified experiential learning as an appropriate parent discipline for my study. In the next section I will review relevant literature relating to experiential learning.

### 4.3 THE PARENT DISCIPLINE – EXPERIENTIAL LEARNING

Fox (1997) indicated that two approaches to management education and development have emerged since 1960. These were management education and management development. Whereas management education was more theoretical and focused on emphasising a particular body of knowledge, management development was more practice orientated and emphasised a repertoire of skills. Both these approaches however placed theory over practice and the individual over the social learning aspect.

Management learning emerged over the following years as a bridge between the theory-practice gap, not addressed by the earlier approaches. It aimed at looking at the whole field of managing learning with one of the key points being that educating managers is different from educating school-leavers or undergraduate students (Fox, 1997). Grey and Antonacopoulou (2004) added to this by indicating that management learning is connected with the social, economic and political thought which characterises the times and it is not just about the individuals in their organisations. Management learning emphasises learning in management. A learning theory that has a long history in management education and development is experiential learning (Armstrong & Fukami, 2009). In a bibliography prepared by Alice Kolb and David Kolb (2002), it was determined that the second highest research output from 1971 to 1999 relating to experiential learning, was in the field of management. My study also contributes towards this research focus.

Experiential learning theory (ELT) draws on the work of John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers and others and has long been considered a useful learning theory for management development (Armstrong & Fukami, 2009). The design of the management development programmes that is the focus of my study, is also based on experiential learning and therefore draws on the students' work experiences as a means of acquiring knowledge. In this regard, Heron (2009) stated that ELT facilitates obtaining knowledge of 'being and beings' through active participation.

There are several theoretical orientations of experiential learning. These include the constructivist approach of Kolb (1984) and Jarvis (1987), the situated models of Boud and Walker (1991) and Usher, Bryant and Johnson (1997) and the complexity approaches by Fenwick (2003). From an adult learning perspective, it is however argued that ELT does not sufficiently indicate how the individual's learning goals, purposes and life choices fit into the experiential learning process. It also does not acknowledge the different types of learning as discussed earlier and the fact that individuals may have different learning styles for these (Kelly, 1997).

Another criticism is that Kolb's theory was developed based on the development of psychomotor skills and that there is not sufficient evidence to suggest that ELT would be applicable to the acquisition of other forms of knowledge and skills. The transfer of learning from one context to another could also not be sufficiently proven. (Pickles, n.d.)

Kolb (1984) delineated ELT by providing a detailed description of the learning process (inspired by Kurt Lewin's work) in that he denotes four distinct stages in the learning cycle. These stages include concrete experience, reflective observation, abstract conceptualisation and active experimentation. ELT could therefore be defined as a learning process that transforms experience into knowledge through a process of human adaptation and could therefore be applicable, not just in formal classrooms, but also in all other life situations. Kolb (2005) in addition stated that the holistic nature of ELT implies that it could be applied to all levels of human learning, including the individual, groups, organisations and society. Of particular interest to my study is the fact that research on experiential learning in management has clearly illustrated that ELT could describe the management process as a learning process through which managers solve problems and make decisions.

Kolb has however been criticised for compartmentalising the learning cycle in clearly denoted stages. The main criticism regarding this approach is that it does not equate to reality and that a number of processes could occur at the same time, or some may be missed out completely (Beard & Wilson, 2013; Pickles, n.d.). Thorpe, Pavlica and Holman (1998) also voiced this criticism and add that the distinct learning stages imply that a person cannot think and act at the same time. They, in addition, contend that Kolb depicts reflection as a purely internal process (individual). Reflection could however also take place in discussion with others and therefore be a social process. Should reflection be a social process, it may therefore be likely that reflection occurs in action, as opposed to after action. They conclude by stating that Kolb's process of learning does not fully consider the influence of other social actors on the learning process (Thorpe et al., 1998).

Further criticism of ELT includes that fact that the model was developed based on a fairly limited range of cultures which mainly included Western Cultures. There is therefore a need to consider the applicability of ELT on a broader cultural range. The current assumptions underpinning ELT are therefore at this stage mainly based on a Western perspective (Pickles, n.d.).

Kolb (2005) also states that engagement of the learning cycle is influenced by the individual's particular learning style. In this regard, Kolb identified four learning styles that each favour a particular stage in the learning cycle. These are referred to as diverging, assimilating, converging and accommodating. These learning styles have however been criticised as being too simplistic and further studies by, amongst others, Eickman, Boyatzis & Mainemelis and Abby, Hunt & Weisner identified additional learning styles to supplement Kolb's initial four styles. (Pickles, n.d.) The learning styles provide good insight that could assist educators with the development of experiential learning programmes to some extent. On the programmes that I facilitate, learning styles are however mainly used to provide insight into individual learning preferences that could impact group dynamics during group work sessions. Anecdotal evidence that I gathered based on participant observation suggests that students find it useful to understand how the different learning styles affect each individual's behaviour in these group work sessions.

Another factor that is taken into consideration in ELT is the concept of learning spaces that builds on theoretical frameworks such as Kurt Lewin's field theory, Urie Bronfenbrenner's work on the ecology of human development, Lave and Wenger's situated learning and Nonaka and Konno's theory of knowledge creation (Armstrong & Fukami, 2009). The concept of learning spaces considers factors that influence a person's learning. Such factors include the individual's position, region, locomotion, barriers in the person and the world, conflict and goals. I found the concept of learning spaces of particular interest in my study as it intimates a degree of learning readiness that is required in order for an experiential learning experience to be successful. Kolb (as quoted by Merriam) identified the following key abilities that are required in order to learn from experience (Merriam et al., 2007, p. 154):

“(1) an openness and willingness to involve oneself in new experiences (concrete experience);

- (2) observational and reflective skills so these new experiences can be viewed from a variety of perspectives (reflective observation);
- (3) analytical abilities so integrative ideas and concepts can be created from their observations (abstract conceptualization); and
- (4) decision-making and problem-solving skills so these new ideas and concepts can be used in actual practice (active experimentation).”

The above factors could be interpreted as antecedents of experiential learning and, as mentioned before, I found evidence of several of the above factors that are required in order for a student to be learning ready to engage an experiential learning management development programme. In the context of my research problem and question, I was particularly interested in exploring learning readiness for experiential learning. I observed that students who have a higher degree of learning readiness have the ability to engage the learning process more intensely. It would therefore be useful to explore learning readiness particularly in the context of experiential learning.

Another key element that is relevant to my study in the context of experiential learning is how students manage their own learning within an experiential learning process. From my observations, it was evident that students who had the ability to manage their own learning had a much more significant transformational learning experience than those who do not have the ability to manage their own learning.

The last aspect relating to experiential learning that I need to explore in more detail was the engagement of the experiential learning process. It is evident that students who engage the learning process fully experience personal growth and development and have a significant transformational learning experience. It would therefore be beneficial to explore these three concepts in relation to experiential learning in more detail. I will do this in the following three sections, commencing with learning readiness for experiential learning.

#### **4.3.1      *LEARNING READINESS FOR EXPERIENTIAL LEARNING***

In the previous section, it was determined that a student requires a certain degree of learning readiness in order to engage an experiential learning process. Learning readiness was also defined as one of the key concepts in my research problem and question and is therefore relevant to my research context. A scale that is highly used to measure learning readiness is Guglielmino’s (1977) Self-directed Learning Readiness Scale (Fisher, King & Tague, 2001). Although this is an extremely useful instrument, it does not allow for the measurement of learning readiness through different pedagogical approaches.

An extensive literature search on learning readiness in management education in 2000 could not produce a single article that directly addresses the topic of learning readiness for experiential learning (Maddox, Forte, & Boozer, 2000). Further searches provided fragmented information that could contribute towards a definition

of learning readiness for experiential learning. My definition of learning readiness will focus on learning readiness in adult learning only and will have a specific focus on learning readiness for experiential learning.

Kolb's (1984) concept of learning spaces identifies key elements that may influence a student's experiential learning process. Some of these include the individual's position, region, locomotion, barriers in the person and the world, conflict and goals. An analysis of the dimensions of learning readiness that I derived as a result of the grounded theory process, as well as insights derived from Kolb's concept of learning spaces, indicated that there is a psychological and physical dimension to learning readiness. I will first explore the psychological dimension, taking relevant literature into consideration.

In pedagogy people learn what society expects them to learn. This is evident in the limited choice that children have over the learning content provided during their school careers. In andragogy people however focus on learning what they need to know. Learning readiness in adult learning is therefore completely different from how the concept is defined in childhood learning.

Learning readiness in adult learning is often linked to life goals or events. Knowles also refers to this as 'teachable moments' and indicates that these 'teachable moments' co-insides with the evolution of social roles in the person's life (Knowles, 1980). In the context of this study, the students were nominated by AGA to attend a management development programme. The nomination of a candidate therefore implies that AGA views these students as potential managers and leaders in the organisation. The nomination of a candidate for the management development programme therefore signifies a potential change in the social role of the student in his/her organisation. This could act as a motivating factor for the student to engage the programme and therefore contributes towards the motivation to learn.

Constructivists believe that an individual's motivation for learning will greatly affect their abilities and capacities to learn and will in addition influence what is chosen to learn. The concept of goal-directed action in the knowledge creation process is referred to by Piaget as 'action scheme' and is central to Piaget's theory of knowledge. This concept is derived from the biological notion of 'reflex' and therefore implies that knowledge arises from the active subject's activity, either physical or mental, and it is goal-directed activity (Von Glasersfeld, 1995).

Houle's focus on defining motivation in learning focuses on three learning orientations. According to Houle, goal oriented learners use education as a means to achieve other goals. This is most relevant to this study, seeing that the students use education to increase their career prospects by becoming more effective managers. They do however comply with the wish of the organisation to engage in this management development programme (Grill, 2002).

Merriam et al. (2007) in addition defined learning readiness in self-directed learning as "...an internal state of psychological readiness to undertake self-directed learning...." (p. 121). They further state that it includes a

complex mixture of attitudes, values and abilities. They added that the psychological qualities included in learning readiness include: "...initiative, independence, and persistence in learning; acceptance of responsibility for one's own learning; self-discipline; a high degree of curiosity; a strong ability to learn independently; enjoyment from learning; a tendency to be goal oriented; and a tendency to view problems as challenges rather than obstacles." (p. 121).

All the above factors indicate that one of the dimensions of learning readiness is psychological readiness. This is however not the only dimension that contributes towards learning readiness for experiential learning. In my study, I clearly identified a physical readiness dimension as well. In this regard, Kolb's (1984) concept of learning spaces identifies that the individual's position, region and locomotion could influence experiential learning. In my study, I found that students who were most successful on the programmes were in some kind of supervisory position that allowed them to implement actions. The student's position in the organisation therefore contributes towards the physical readiness for experiential learning in management development.

Billet (2001, pp. 209 - 210) in addition indicated that learning "readiness also includes the norms and work practices that constitute the invitational qualities for individuals to participate and learn through work.". Billett (2001) highlighted the fact that readiness is also affected by the organisation's ability to afford learning opportunities and support for learning. Given the action research learning design of this programme, learning readiness in relation to the organisation's willingness to afford learning opportunities as well as support is very relevant in this study. Unless a student is afforded opportunities to learn at work, the student will not be able to fully engage the experiential learning process.

In the context of this study, learning readiness could therefore be defined as the learner's physical and psychological readiness to undertake the learning process. I found that a student who has psychological and physical readiness is able to engage the experiential learning process and due to the fact the he/she is afforded opportunities for learning, can manage his/her own learning better. Ability to manage own learning was the second concept that I identified in my research problem and I will discuss this concept in the next section with reference to experiential learning.

#### **4.3.2      *ABILITY TO MANAGE OWN LEARNING IN AN EXPERIENTIAL LEARNING PROCESS***

In my study, I found that a student's ability to manage his/her own learning was central to the success of the experiential learning process. In this regard Merriam et al. (2207) state "...learning is a personal process - but a process that is shaped by the context of adult life and the society in which one lives" (p. 1). It is therefore important that students have the ability to manage this personal learning process in order to derive the maximum benefits from the learning experience.

Ability to manage one's learning in reference to McClusky's Theory of Margin has a very close correlation to the interpretation of this category. His theory states that an adult learner "constantly seeks balance between



the amount of energy needed and the amount available.” (Merriam et al., 2007. p. 97). He referred to this balance as a ratio between ‘load of life’ and the ‘power of life’, which allows a person to deal with the load. ‘Margin of life’ is therefore depicted as the ratio between load and power. If there is more power, then the adult learner will have a greater margin to engage the learning process. (Hiemstra, 1981, 2002).

In addition, both load and power consist of external as well as internal factors. External factors impacting on load include family, work and community responsibility. Internal factors that impact on load include the learners’ life expectancies eg aspirations, desires and future expectations. External factors impacting on power include family support, social abilities and economic abilities. Internal factors impacting on power include skills and experiences contributing to the learner’s performance, eg resilience, coping skills and personality.

McClusky stated that “Margin may be increased by reducing Load or increasing Power, or it may be decreased by increasing Load and/or reducing Power. Each can control both by modifying either Power or Load. When Load continually matches or exceeds Power and if both are fixed and/or out of control, or irreversible, the situation becomes highly vulnerable and susceptible to breakdown. If, however, Load and Power can be controlled, and, better yet, if a person is able to lay hold of a reserve (Margin) of Power, he [sic] is better equipped to meet unforeseen emergencies, is better positioned to take risks, can engage in exploratory, creative activities, is more likely to learn, etc” (Merriam et al., 2007, p. 94).

In my study, I found that a student’s ability to develop and harness support from various networks is a key aspect that influences his/her ability to manage load and power. In this regard, the role of support networks is multi-dimensional and these are shaped depending on the student’s support needs. A lack of appropriate support often results in overload and the resultant disengagement of the learning process. The ability to balance work, study and family commitments is imperative for success and is confirmed in the following quote from a student:

*“Embarking on the IMDP 6 program has impacted, positively and negatively, on all aspects of my life: social, personal and work life etc. There is much demand on me to do the academic work; continue with my work as a manager creating value for my company, keep my family happy and also meet some social demand.”*

Full engagement of the learning process is required in order to achieve the desired conceptual change.

In addition to McClusky’s theory of Margin, Illeris (2009) referred to three dimensions that influence the learning process. These are:

- Cognition – referring to the individual’s knowledge and skills
- Emotion – referring to the learner’s feelings, emotions, attitudes, etc; and
- Society – referring to external interaction with people and the physical environment (Merriam et al., 2007) .

These factors could all be classified as either internal or external factors of load or power.

Therefore, a student that can effectively manage his/her own learning must have a sufficient margin of power available as is required by the learning process. Should this margin not be sufficient, the student may disengage from the learning process. Engagement of the learning process is therefore a key factor that influences the overall experiential learning experience. I will review this concept in the next section.

### 4.3.3 *ENGAGEMENT OF THE EXPERIENTIAL LEARNING PROCESS*

Engagement is a concept that is commonly encountered in adult learning and educational literature. It is also often linked to studies in workplace learning (Gutierrez, Baralt & Shuck, 2010). It is generally accepted that learning has limited meaning without student engagement (Wlodkowski, 2008).

The literature in addition revealed three different emphases relating to student engagement. There is either an emphasis on the individual student learning, a focus on structure and process or an emphasis on identity (Trowler, 2010). Heron (2009, p. 144) stated that learning is an individual pursuit and that nobody else can do it for you. He further elaborates that “[i]nterest, commitment, understanding and retention are all autonomous, self-generated and self-sustaining.”

In the context of my study, engagement of the learning process refers to the intensity with which a student engages in the module activities, action learning assignments and reflective practices. My focus on engagement is therefore on the individual student and to a lesser extent on identity.

Student engagement could be defined in several ways. One of the relevant definitions was formulated as follows:

“...participation in educationally effective practices both inside and outside the classroom, which leads to a range of measurable outcomes” (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007).

Confirming this definition is a reflective writing of one of the students in my study who stated the following:

*“What still fascinates me about my PGDip experience is that most of my learning is done on my own outside of the GSB. I am so much more aware of the learning that is taking place and that is why I can take full advantage of it now. Ignorance is definitely NOT bliss.”*

The quote above illustrates that the student acknowledges the fact that the learning experience extends beyond the classroom and that it leads to favourable outcomes. Learning engagement however includes several dimensions.

Coates (2007) identified five elements that represent engagement. These are:

- “active and collaborative learning;
- Participation in challenging academic activities;
- Formative communication with academic staff;
- Involvement in enriching educational experiences; and
- Feeling legitimated and supported by university learning communities.”

Shuck and Wollard (2010, p. 90) further defined engagement as “....a cognitive, emotional, and behavioural state directed toward identified outcomes.” I will explore these three dimensions in more detail with reference to the results of my study and relevant literature.

Regarding the cognitive dimension of engagement, I found that the key driver of students’ ability to engage the learning process was how well the student could establish relevance of the theories. It is only through engagement of the learning process and ‘wrestling’ with the theories, that a student is able to determine how the theories could assist him/her in the work context. Through engagement of the learning process, the student will re-enforce the usefulness of study material and this will in turn assist the student to deal with issues in the workplace.

Trowler (2010) in this regard indicated that students who are cognitively engaged will make an investment in their own learning and would often go beyond the minimum requirements of their studies. Trowler further stated that “Student engagement is concerned with the interaction between the time, effort and other relevant resources invested by both students and their institutions intended to optimise the student experience and enhance the learning outcomes and development of students and the performance, and reputation of the institution.” (p. 3). This relates to some kind of behavioural dimension of engagement.

Behavioural engagement implies that the student adheres to the behaviours required from the particular learning programme, which could include attendance, submission of assignment and others. In the context of my study I found that students who adhered to the assignment schedule, class attendance and other compulsory student activities had a higher level of engagement and a greater degree of success on their programmes.

The third dimension of engagement is emotional engagement. Emotional engagement implies that the student will experience emotions or reactions to the learning process, for example enjoyment. Cognitive engagement refers to the investment that the student makes into the learning process and seeking to go further than the minimum requirements of the learning programme (Trowler, 2010), Heron (2009) in this regard indicated that “[l]earning involves the whole person, either by inclusion or by default. Either all of us are explicitly involved in the learning process or only part of us is explicitly involved and what is excluded can be negatively influential, undermining either the content of the process.” (p. 144).

It is therefore unavoidable that a fully engaged student will also be emotionally engaged in the learning process. There could however be different forms of engagement. It is proposed that the three learning dimensions (cognitive-, emotional- and behavioural engagement) could each have a positive and negative pole that each represents some form and level of engagement. A student could therefore positively engage in some dimensions, but negatively in others. The manner in which adults engage in learning could also differ. Coates (2007) identified four different engagement styles dependent on the academic and social focus of the student. These styles are intense, independent, collaborative and passive.

Trowler (2010, p. 33) concluded that for students to benefit from engagement of their learning process, they “must invest time and effort into academic activities and practise....that correlate highly with positive educational outcomes”.

In addition to this student’s observation, I observed when marking the student assignments that the students who are willing to engage the process get most value out of the work in that there is clear evidence in their assignments of interventions that they develop to better cope with study/family/work commitments and to make improvements in the workplace. There is clear evidence that engagement of the learning process leads to personal development. Gutierrez et al. indicate that engagement “leads to improvements in learning and personal development which, in turn, leads to satisfaction, persistence, and growth.” (MacKay & Kuh as cited in Gutierrez et al., 2010, p. 33)”

Evidence found in this study that supports this point was when a student acknowledged that some students will go through the programme without significant personal changes, whilst those who engage the learning process experience significant growth. This is evident in the following quote:

*“Im (sic) amused that some people take so much out of this programme and others just see PGDip as an extra worry and more work. The more I reflect about the way my life has changed since starting the course the more Im (sic) thankful for the opportunity.”*

The above points to the fact that there clearly must be a motivation for engagement. Three key factors were found that motivate adults to engage the learning process. These are meaningfulness, safety and availability (Gutierrez et al, 2010, p. 34). Meaningfulness relates to how valuable or significant the student judges the learning experience to be in relation his/her life goals and personal aspirations. Safety refers to the perceived feeling of safety in the learning environment, whereas availability refers to the physical, emotional and psychological resources required by the student to engage the learning process (Gutierrez et al, 2010).

In this regard, the authors stated that “adults who feel both that their involvement is meaningful and safe and that they have the resources to complete their task are more likely to be engaged. Furthermore, adults who feel this way are likely to express their engagement cognitively, emotionally, and behaviorally (Khan, 1990). Engagement is strongest when all three dimensions are used (Khan, 1990).” (Gutierrez et al, 2010, p. 34).

From the definition of engagement of the learning process, it could therefore be concluded that this concept is a critical component that contributes towards the success of a learning experience and will allow a student to develop in many ways. Of note is that fact the engagement of the learning process could also assist the student to develop feelings about his/her peers and organisation that will give them a sense of belonging (Trowler, 2010). A sense of belonging in the workplace could lower the student's level of anxiety to take action during the experiential learning process. Kayes (2001) indicates that the first stage of the experiential learning cycle, concrete experience, is often characterised by emotions of 'anxiety, fear and doubt'. These emotions could hamper the experiential learning cycle. In the context of workplace learning, developing a sense of belonging due to engagement of the learning process could therefore assist the student in developing courage to take action during the experiential learning process.

Courage to take action during the experiential learning process was one of my key variables that I identified in the grounded theory process. This concept will be discussed in relation to experiential learning literature in the next section.

#### 4.3.4 *COURAGE TO TAKE ACTION DURING EXPERIENTIAL LEARNING*

A key challenge that a student may experience with experiential learning in organisations, is that the experiences created as part of the learning cycle, have to be created within the complex social power relations within the organisation (Vince, 1998). Depending on the nature of these power relations within the organisation, a student may therefore often require courage to implement experimental actions in his/her organisation. Limited consideration is currently given to the role that courage plays in experiential learning. It would appear as if most of the literature assumes that the student will have courage to implement actions as part of the learning process.

Treasurer (2013) identified three types of courage:

- TRY Courage: the courage to implement experimental actions
- TRUST Courage: having the courage to have confidence in other people; and
- TELL Courage: The courage of speaking up when required.

The courage referred to in my study relates mostly to TRY Courage.

Hamel (2007, p. 242) stated that "You can't build a management advantage unless you have the guts to tackle problems that others are too timid or too shortsighted to take on." Even though Hamel's quote does not make specific reference to action learning, one could similarly infer that courage is required in order to implement actions derived from a Problem-Based Learning approach that would require implementation.

The closest reference in adult learning literature is from Yeo and Gold (2010, p. 148) who stated that:

“Acting is also a demonstration of one’s confidence and courage in responding to potential ambiguities and risks. Acting is also learning personified where the two are intricately bound. As most would agree, learning without action is dead and action without learning is premature death.”

In the context of my study, engagement of the learning process, in the AGA management development programmes, facilitates a sense of belonging to a community of practice. Vince (1998, p. 307) illustrates this dynamic by stating that “[c]omplex and unequal relations around knowledge are constructed between people as an integral part of the learning process.” This implies that due to the status of the programmes in the organisation, students who are enrolled on the programme are immediately associated with other students who have completed the programme, thus engendering a sense of common practice or a learning network.

Learning networks in an organisation could develop trust amongst the members that make it easier for the students to have the courage to implement the actions designed during the experiential learning process. Courage to take action in the organisation is a critical element of the learning process. According to Bergh, having the self-confidence and courage to try out new ideas is the psychodynamic dimension of learning (Tell, 2011).

Bergh (2009) conducted a study on how entrepreneurs learn and similarly to Tell (2011), concluded that learning networks could be a good opportunity for learning. Bergh however focused on external networks in this regard. Bergh (2009, p. 9) further determined that knowledge created by entrepreneurs is built “on networking skills, the ability to analyse market conditions, and the courage to implement one’s ideas.” Yeganeh and Kolb (2009, p. 17) briefly mentioned the role of courage in taking action by stating that “acting can be enhanced by courageous initiative-taking....”

Courage to take action during an experiential learning process is not currently sufficiently addressed in the literature. Without courage to take action, students will not take the steps required to implement the actions developed and will therefore not create the concrete experiences that are a vital component of the learning cycle. In the next section, I will review the role of concrete experiences in experiential learning in more detail.

#### 4.3.5 *CONCRETE EXPERIENCES IN EXPERIENTIAL LEARNING*

Elkjaer (2009) indicated that people have experiences purely due to how they live their lives and how they develop relationships with other people in their lives. According to Elkjaer, it is ‘impossible to avoid experience’ (p. 82). Elkjaer further illustrated that experience is central to Dewey’s thinking about education and learning and that it is not primarily associated with knowledge. Dewey’s concept of experience is more an ontological construct. In the context of experiential learning, these experiences are however much more significant than just living our lives. Elkjaer (2009, p. 79) confirmed this by stating that “There are no experiences with some form of knowing.” Knowledge creation and experience is therefore intrinsically connected.

Yeganeh and Kolb (2009, p. 17) have a similar view and therefore stated that “acting requires commitment and involvement in the practical world of real consequences. In a sense it is the ‘bottom line’ of the learning cycle, the place where internal experiencing, reflecting and thinking are tested in reality.” The acting in experiential learning therefore implies much more active involvement, given that concrete experiences form the basis of our experiences in the world that we reflect on in order to learn. Without concrete experiences, the learning cycle will therefore be incomplete. Billett’s (2000) work on learning at work corresponds with these authors and he emphasises that concrete experiences lead to learning. These authors all therefore agree with Kolb who states that learning is “the process whereby knowledge is created through the transformation of experiences.” (Kayes, 2001, p. 3). The results of my study further support this particular point of view.

Billett (2000) further stated that the types of problem-solving (which leads to concrete experiences) that individuals encounter could extend along a range of either being routine or non-routine. The non-routine experiences will lead to new learning, whereas the routine experiences could lead to re-enforcement of prior or existing knowledge. One could assume that routine activities would not require much courage to complete, seeing that the person is familiar with the nature and expected outcome of the activity. Non-routine activities could however create anxiety and/or fear seeing that the process and expected outcome is unfamiliar to the person. The implementation of non-routine activities that leads to new learning therefore would require a measure of courage. Billett (2000) quoted Rogoff and Vygotsky and highlighted the contribution and guidance of work colleagues with more experience during the implementation of non-routine activities. This could also in addition decrease the level of fear or anxiety.

According to Jarvis (1987), there are two types of experiences. These are primary experiences that you experience through your senses, as well as secondary experiences that are those that create meaning. Regarding secondary experiences Jarvis (1987, p. 28) stated that “...when the sense are relegated and we are more concerned with the cultural meanings, when we do not know the meanings or words rather than the sounds etc., then we have secondary experiences – these are mediated experiences which are often through speech and the written word... .”

It would appear as if Jarvis’ (1987) interpretation of primary experiences correlates with the routine activities that Billett (2000) identified and that the secondary experiences correlate with the non-routine activities identified by Billett. There also seems to be a correlation with Argyris (1995) and Schön’s (1983) single-loop and double-loop learning in this regard. It is however important to assess what the authors’ interpretation is of how these experiences result in learning. The focus of my review will be on those non-routine or secondary experiences that are indicated by Billett and Jarvis respectively.

Jarvis (1987, p. 27) stated that new experiences (or non-routine or secondary experiences) create a state of disjuncture. He further stated that “It is this disjuncture that is at the heart of conscious experience – because conscious experience arises when we do not know and when we cannot take the world for granted. Through a variety of ways we give meaning to the sensation and our disjuncture is resolved.” Elkjaer (2009) in this

regard stated that an experience does not solely consist of the experience itself, but it includes both the process of experiencing as well as the result. It could be concluded that Jarvis' giving meaning to an experience and Elkjaer's result of an experience seem to resonate. There however has to be some kind of reflection or thinking in order to create meaning from an experience. In this regard Elkjaer (2009, p. 78) stated that "Action and thinking are not separate and clearly defined processes, but are integrated and connected."

Elkjaer therefore does not seem to agree with the clear distinction that Kolb (1984) made between the stages in the learning cycle. Schön (1983) made a contribution towards reflective practice with his work on reflection-in- and -on -action. According to Schön, reflection-in-action is often referred to as 'thinking on your feet'. This involves developing insight as the situation unfolds that guides further actions. Reflection-on-action takes place after the event. Schön's work in this regard supports Kolb's stages of learning, but contributes in the sense that reflection could take place concurrently whilst the concrete experience unfolds.

The critical element that most authors however agree with is that reflection has to take place in order to lead to learning. Elkjaer (2009, p. 84) concisely formulated this idea by stating that "...experience is not knowledge, but only a foundation for the creation of knowledge." The experiences that we have could either rejected it, just reflect on it or choose to do something about it. When we resolve this disjuncture, we develop answers. These answers are however influenced by the social context within which it occurs (Jarvis, 1987). As we give meaning to the experiences that we have, they in turn change us. It could either change the way in which you approach future tasks, or it may change your beliefs, attitudes or values. Jarvis indicates that as a result of the individual's change, the social situation will also change. There are therefore three transformations that result from learning: "the sensation, the person and then the social situation." (Jarvis, 1987, p. 29).

The most significant transformation that I observed in my study was an increase in cognitive flexibility. This is consistent with Billett's work on workplace learning in which he stresses the increasing importance of conceptual knowledge for workplace performance. This concept will be reviewed in the next section.

#### 4.3.6 *HOW EXPERIENTIAL LEARNING DEVELOPS COGNITIVE FLEXIBILITY*

A review of literature revealed that the concept of cognitive flexibility is well researched and that the main theorists who developed the cognitive flexibility theory are Rand J. Spiro, Paul J. Feltovich and Richard L. Coulson (Spiro, Coulson, Feltovich, & Anderson, 1988). According to these authors, cognitive flexibility theory is "the ability to restructure knowledge in multiple ways depending on the changing situational demands (i.e. difficulty or complexity of the situation) (Spiro et al., 1995)." (University of South Alabama, n.d.). Murdock, Oddi and Bridgett (2013, p. 97) elaborated on this definition by indicating that cognitive flexibility "refers to the ability to shift one's attention... between multiple tasks or mental sets." There was insufficient evidence of disagreement between authors about the basic definition of cognitive flexibility or the learning conditions that could plausibly facilitate the development of cognitive flexibility.



The primary goal of developing cognitive flexibility is to enable the student to understand different situations. This theory is therefore concerned with the transfer of knowledge and skills from one context to the other. Information must therefore be presented from multiple perspectives.

The theory itself focuses on the nature of learners that have to learn in complex and ill-structured learning contexts and how learning should be facilitated. According to Chieu (2007, p. 34), there are two principle conditions of learning in order to develop cognitive flexibility: “multiple modes of learning.... And multiple perspectives on learning”.

In order to attain cognitive flexibility, a student must not over-simplify problems, but be able to understand problems in their full complexity. This theory is based on constructivism, however Spiro emphasised two main aspects of the constructivist process: “(1) understandings are constructed by using prior knowledge to go beyond the information given; and (2) the prior knowledge that is accessed is itself constructed, rather than retrieved intact from memory.” (Cooper, n.d.).

A working definition of cognitive flexibility could therefore include the ability to adapt mental actions and behaviours based on the interaction with and feedback received from the environment. Cognitive flexibility is also perceived to be an executive function (Cooper, n.d.).

In the context of my study, cognitive flexibility was one of the key elements of the conceptual change that occurred. This category related to the students’ ability to comprehend new concepts and integrate learning into their management practice.

Empirical evidence developed in my study indicated that cognitive flexibility could also be defined as an individual’s flexibility in attempting to deal with the intellectual demands of a complex situation and ‘getting to know’ using multiple sources and with a keen perceptual ability. It includes amongst others the following attributes:

- Being open to new ideas from various sources
- Being open to innovative thinking
- Encouraging creativity and experimentation
- The ability to identify relevant information
- Analytical and logical thinking skills

Cognitive flexibility leads to increased ability to conceptualise ideas and sense-making. It enables a person to deal with complex situations and to comprehend strategic contexts which ultimately improve management effectiveness.

In conclusion, Spiro et al. (1988) indicated that cognitive flexibility implies that a person selects and adapts information that is appropriate for a particular situation in order to improve decision making. An increase in

cognitive flexibility could therefore also imply that a person could better read a social situation and therefore have an increased level of social astuteness to deal with social situations. The concept that I will review in the next section is therefore social astuteness.

#### 4.3.7 *SOCIAL ASTUTENESS AS A CRITICAL COMPONENT IN EXPERIENTIAL LEARNING*

Social astuteness was identified as a key element of the conceptual change that occurred in the management cadre as a result of the management development programme. The significance in this category is mainly centred in the ability of students to communicate more effectively in order to build and maintain good working relationships with stakeholders. Relationship management is strongly linked to conceptual ability and communication skills. It is aimed at building positive relationships, developing trust and creating commitment towards the organisation.

Social astuteness for the purposes of this study, could be defined as the ability to understand people and their behaviour and through effective communication build, develop and maintain trust in relationships that enable the manager to create a cohesive workplace that is conducive towards learning and the achievement of goals.

In the context of adult learning and especially experiential learning that was a key component of this programme, social astuteness could however be seen as a key component in a team learning process. Kolb states that for a team to learn from collective experience, it is required that a 'conversational space' be created in order for the team members to reflect on their collective experiences (Armstrong & Fukami, 2009). The results of this study and the key elements identified in this category indicate that managers developed better communication skills and are able to facilitate team development and learning in teams.

Significant contributions were found in literature that assisted in defining the concept further.

The work of Vickers explains this concept most accurately. Vickers stressed the importance of human relationships. For him, the key element of all human activity involves maintaining human relationships. Vickers maintained that people need to take personal responsibility for maintaining these relationships (Ramage & Shipp, 2009). Vickers further developed the concept of an appreciative system. This is depicted in Figure 27 below.

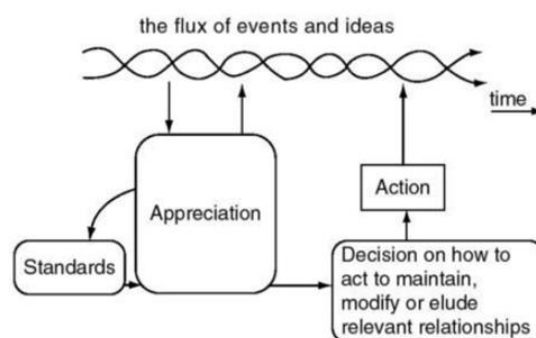


FIGURE 27. VICKERS' APPRECIATIVE SYSTEMS MODEL (RAMAGE & SHIPP, 2009, P. LOC 1241 OF 4659)

In Figure 27, the flux of events and ideas changes over time. The process of appreciation is about perceiving these events and ideas and making sense of them. This process leads to judgements and actions taken that in turn become part of the stream of events and ideas. Checkland and Casar argue that “the epistemology of the judgement-making will be one of relationship-managing rather than goal-seeking” (Checkland and Casar as cited in Ramage & Shipp, 2009). (Ramage & Shipp, 2009, p. Loc 1226 of 4649). Social astuteness in this regard is therefore seen in a similar vein as the process of appreciation as depicted in Vickers’ model.

Social astuteness is also defined in many sources as the ability to read social settings and adjust your behaviour accordingly. (Gentry & Leslie, 2012) Wankel and DeFillippi (2002) agreed with this interpretation and add that socially astute people can accurately interpret social situations “as well as the interpersonal interactions that take place in these settings” (p. 7).

It has long been recognised that managers require skill other than intelligence and hard work in order to achieve career success. Pfeffer (1981) as quoted by Ferris was one of the first authors to use the term political skill as a key requirement for managers to be successful in organisations. Mintzberg (1983) referred to political skill as the act of exercising influence through ‘persuasion, manipulation, and negotiation.’

Ferris defined political skill as “the ability to effectively understand others at work, and to use such knowledge to influence others to act in ways that enhance one’s personal and/or organizational objectives” (Ferris, Treadway, et al., 2005: 127) (Ferris, et al., 2007, p. 291). Ferris further stated that “politically skilled individuals combine social astuteness with the capacity to adjust their behavior to different and changing situational demands in a manner that appears to be sincere, inspires support and trust, and effectively influences and controls the responses of others.” (Ferris, et al., 2007, p. 292).

They further identify that political skill has the following four dimensions:

- Social astuteness;
- Personal influence;
- Networking ability; and
- Apparent sincerity.

Social astuteness could therefore be defined as a dimension of political skill. The key attributes of social astuteness defined by Ferris include (Ferris, et al., 2007):

- “Individuals that have social astuteness are keen observers of others;
- They understand social interactions well
- They can accurately interpret the behaviour of people; and
- They are finely attuned to different social situations;
- They have a high level of self-awareness

- They are often seen as being clever in dealing with other people .”

Social astuteness as a dimension of political skill has both a cognitive understanding of perceptiveness component as well as a behavioural action component to it (Ferris, et al., 2007). In addition, social astuteness can be measured by “1) understanding people well 2) being good at sensing the motivations and hidden agendas of others 3) having good intuition or savvy about how to present myself to others 4) instinctively knowing the right things to say or do to influence others 5) paying close attention to people’s facial expressions” (Social astuteness, n.d.).

It is important to indicate the distinction between political skill and emotional intelligence. Goleman defined emotional intelligence to such an extent that it includes almost all social aspects focusing on the emotion-based aspects. Political skill however is defined in such a manner that it also incorporates knowledge and skills that go beyond emotions. Social astuteness should therefore not be seen in the same light as emotional intelligence (Ferris, et al., 2007).

In the context of adult learning, social astuteness is of particular relevance from a social learning perspective. Jarvis, as quoted by Merriam states:

"Learning, even self-directed learning, rarely occurs 'in splendid isolation from the world in which the learner lives; ... it is intimately related to that world and affected by it" (Jarvis as cited in Merriam et al., 2007, p. 11).

In social learning, meaning-making occurs primarily through communication. Von Glaserfeld (1995) indicates that: "Sensorimotor knowledge manifests itself in actions, but conceptual knowledge is expressed in symbols. When we come to investigate this knowledge, the symbols are mostly linguistic" (p. 76). In order for effective learning to occur, successful ‘navigation’ of the flow of events and ideas is required, as well as maintaining good relationships in order to facilitate an effective appreciation process.

Social astuteness for the purposes of this study, could be defined as the ability to understand people and their behaviour and through effective communication build, develop and maintain trust in relationships that enable the manager to create a cohesive workplace that is conducive towards learning and the achievement of goals.

In my study, I found that an increase in cognitive complexity, combined with an increase in social astuteness, were the key contributors towards the facilitation of the transformative learning experience that students underwent. The next concept that I will review is the extent of the transformative learning experience.

#### 4.3.8 *HOW EXPERIENTIAL LEARNING LEADS TO TRANSFORMATIVE LEARNING EXPERIENCES*

One of my previous concepts that I identified in the grounded theory process is courage to take action. This concept has specific significance to me given the importance that concrete experiences play in the experiential learning process. It was also determined that non-routine activities lead to more learning. According to Stacey

(2003), individuals can however not learn in isolation and learning is therefore the activity of interdependent people. During the learning process, there will be 'self-organising communicative interaction and power'. This could lead to anxiety that could potentially close down the learning process. Stacey further adds that transformative learning requires a person to move into the unknown and this could further increase anxiety. Stacey's view of learning further emphasises the importance of having courage to take action in the context of a transformative learning experience. In addition, it highlights the need for suitable conditions for transformative learning.

According to Tang (1997), the first condition for transformative learning is relational. This implies that the interpersonal context should facilitate equity in access to information as well as the process of exchanging information. There should also be "personal capacities of awareness and discernment, and the flexibility to approach some learning appreciatively, some critically, and the wisdom to know the difference" (Elias, 1997, p. 74).

Transformative learning could therefore be seen as a much deeper learning process that goes beyond that of content learning and is often referred to as third order learning. Whereas behavioural learning emphasises conditioning and reward, cognitive learning focuses on ways of learning, third order learning involves questioning of the validity of actions within the student's context (Engeström, 1994). In the context of adult learning, transformative learning is distinguished from information learning in that information learning is just extending already established cognitive capabilities, whereas transformative learning changes what one already knows (Merriam et al., 2007).

Mezirow (2009, p. 92) defined transformative learning as "the process by which we transform problematic frames of reference (mindsets, habits of mind, meaning perspectives) – sets of assumption and expectation – to make them more inclusive, discriminating, open, reflective and emotionally able to change. Such frames are better because they are more likely to generate beliefs and opinions that will prove more true or justified to guide action."

These frames of reference that Mezirow (1997) referred to are the structures through which we create meaning about the world around us. This frame of reference includes associations, values, beliefs, concepts, amongst others. A frame of reference is the structure of assumptions with which we interpret our experiences. Mezirow (1997) further explains that a frame of reference consists of two dimensions, 'habits of mind' and 'a point of view'. In the Systems Thinking and management literature, a frame of reference is referred to as a mental model. Senge, Kleiner, Roberts, Ross and Smith (1994) indicated that we cannot manage our way throughout the world without mental models that assist us in making sense of the world.

Elias (1997, p. 3) concluded that the expansion of consciousness is inherent in transformative learning. He defines transformative learning as "the expansion of consciousness in any human system through the transformation of basic worldview and specific capacities of the self ..." This definition implies that

transformative learning could also occur in groups and Kasl and Elias (Wallace, n.d.) therefore proposed that small groups can learn as entities. Their definition of transformative learning therefore includes the collective as well as the individual, whereas Mezirow's (1997) original definition did not specifically extend beyond the individual.

A key element of the adult learning process, from a transformative learning perspective, is therefore that learning is a process of sense making or meaning making. Transformative learning theory originally focused mainly on making cognitive adjustments to reframing one's interpretation of the world. Later developments however expanded this thinking and included 'unconscious functions' (Wallace, n.d.). The extension of transformative learning to the 'unconscious functions' implies that students could be engaged in a cognitive, psychomotor and effective sphere in their learning process (Sipos, Battisti, & Grimm, 2008).

This transformation that is referred to, has many similarities with the concept of conceptual change. Davis (2001) defined conceptual change in learning as a change in a person's existing manner of viewing the world, including a change in beliefs, ideas or thinking. Posner, Strike, Hewson and Gertzog (1982) stated that the outcome of a learning process is the result of the interaction between a person's existing ideas and concepts and those that are taught. This interaction could be referred to as a conceptual change. Posner et al. identified two types of conceptual change. The first type is when the student uses his/her existing concepts to deal with a phenomenon. This is referred to as assimilation. The second and more radical form of conceptual change is referred to as accommodation. This is when the student's current concepts or ideas are insufficient to deal with the phenomena and he/she must then replace or reorganize his/her central concepts in order to successfully deal with the phenomena. Transformative learning facilitates accommodation in the learning process.

In relation to accommodation, Von Glasersfeld (1995) stated that if assimilation cannot take place, there is disconcertion. Should this result in a positive outcome, the learner may form new concepts/ideas that are added to his/her conceptual framework. This is defined as accommodation. The empirical evidence found in this study clearly indicates that students on the management development programmes formed new ideas and concepts. The particular type of conceptual change that will therefore be focused on is accommodation.

Posner et al. (1982) acknowledged that accommodations are likely to take place under certain conditions. These conditions are perceived to be similar to the environmental factors identified in this study. In addition, Posner et al. conclude that not all concepts are replaced during accommodation, as some concepts may be retained by the individual and will function as a guide for the process of accommodation. The process of accommodation could be considered the transformation in transformative learning and this process of transformation could occur in any one of four ways. An existing point of view could be elaborated or expanded, a new point of view could be established, a point of view could be transformed, or a habit of mind could be transformed by becoming aware of one's biases (Mezirow, 1997).

The significance of a transformative learning experience is in addition based on a social cognitive orientation towards learning, in that it was found that the learner is influenced by his/her environment, but in turn the learner influences the environment (Merriam et al., 2007). It could therefore be considered to be a type of situated learning as well (Jakubik, 2011). In the context of my study, the extent of the transformative learning experience therefore means that the transformation process of the individual is influenced by the environment and shaped in the context of the organisation's ethos. A critical element to a successful transformative learning process is however engagement, and one cannot assume that all students experienced a transformative learning experience. Tang (1997) indicated that it is required to shift from an observer to a participant mode of inquiry in transformative learning. In an observer mode, one may not change one's existing frame of reference, but possibly interpret the data to fit one's existing frame of reference. As an active participant, the structure of your consciousness will change in the process of transformation.

Consideration should however also be given to the fact that a learner's pre-conceived ideas/concepts may be extremely resistant to change due to certain affective and social components of learning. It is therefore insufficient to only focus on Posner et al.'s 'conceptual ecology' and how it influences the process of accommodation, but one also needs to take the whole learner into consideration (Orey, 2001). In this regard, transformative learning could be considered as a sustainable learning process to develop competence in students (Wals, 2010). One of the goals of transformative learning is therefore to "help students become who they will become rather than be 'trained' " (Newman, 2008, p. 75).

Transformative learning theory is well defined but there are some issues that have been raised that are not sufficiently addressed in the current theory. One of these issues is the role that emotion, intuition and imagination play in the transformation process. The impact of our taken for granted values and beliefs on the transformation process is currently ill addressed and would require further study. My study can unfortunately also not make a contribution to this issue at present (Mezirow, 2009).

Another issue of criticism is Mezirow's decontextualisation of learning by not adequately addressing issues of context, such as ideology, power, and race-class-gender differences (Mezirow, 2009). Studying the linkages between transformative and situated learning may provide further insight into the role of context in the transformation process.

In the next section, I will provide a brief summary of the key findings resulting from my literature review.

## 4.4 CONCLUSION

In this chapter, I explained my approach towards the literature review in relation to the grounded theory approach to literature. I therefore only conducted the literature review after I completed the grounded theory process that lead me to identify the key variables. Classical research on adult learning could trace its foundations back to Malcolm Knowles' work on adult learning, as well as Kolb's research on experiential

learning (Bennet, 2006). In this regard, my study locates itself within the classical research approach of adult learning. A review of adult learning theories in the context of my study indicated that the variables that I identified in the grounded theory process have a good fit with experiential learning theory. I therefore focused on experiential learning as the parent discipline for my study. My review of the literature on experiential learning led me to identify that my study falls within the constructivist approach to experiential learning.

I completed a review of the key concepts in my research problem and question within the context of experiential learning. I determined that learning readiness for experiential learning is currently ill defined in the literature. I will further elaborate on this concept in my last chapter. The second concept in my research problem was the ability to manage your own learning. The findings in my study resonated strongly with McClusky's Theory of Margin (Merriam et al., 2007) and this provided me with additional theoretical insight into this key concept. The last concept in my research problem was engagement of the learning process. A review of the literature enabled me to identify engagement as a critical element of the success of the learning experience. In my study, I determined that engagement of the learning process facilitated the development of courage in the students to take action in the learning process.

The key variables that I identified in the grounded theory process were:

- Courage to take action
- Concrete Experiences
- Cognitive Flexibility
- Social Astuteness
- Extent of the transformative learning experience

A review of relevant literature indicated that most of these concepts occur within the experiential learning literature. The concept that is however not sufficiently addressed at present is courage to take action. The literature provides sufficient information on the factors that make for a conducive environment for experiential learning, but it does not address the fact that a student needs to have courage to implement experimental actions sufficiently. I will address this issue in more detail in the last chapter.

In the next chapter, I will explain the process that I followed to develop my theory, followed by a detailed explanation of the theory that I developed that answers my research question.



## 5 THEORY BUILDING

In the previous chapter, I provided a brief overview of adult learning, aimed at assisting me in identifying the parent discipline of my study. The review of adult learning theories highlighted different approaches to adult learning, of which the constructivist approach resonated best with my research context as well as my worldview. Within the constructivist approach, I selected experiential learning as the parent discipline of my study. The literature review aimed at narrowing the field from the broad field of experiential learning to the more specific concepts that are relevant to my study. These concepts are learning readiness, ability to manage your own learning and engagement of the learning process. This review was followed by a more in-depth review of the key concepts that I developed from the grounded theory process. The literature review that I conducted illustrated that two of the variables that I identified in my study, are currently not fully explored in the literature on experiential learning. The first concept was learning readiness, specifically for experiential learning. My study makes a contribution towards defining key criteria associated with learning readiness for an academic, experiential learning management development programme. The second variable that emerged in my study that is not fully covered in the literature on experiential learning is the need for students to have courage to take experimental actions in their organisations. The contribution that my study makes towards the literature will be explored in more detail in the last chapter.

The purpose of this chapter is to explain the analogical theory building process that I adopted in this study in order to develop the theory relating to the identified variables and the resultant literature review. I will do this by firstly providing my interpretation of what a theory is; followed by an explanation of the two-staged theory building process that I adopted. In the first stage, I applied Beer's (1966) 'process of scientific analogizing' in order to identify a learning theory that I will use a seed theory from which to develop my own theory. Key elements in the seed theory, as well as the gaps that I identified between the seed theory and my key variables were used to develop my theory that answers my research question. In the next section, I will provide a brief introductory discussion relating to theory.

### 5.1 INTRODUCTION

Meta-theoretical discussions in the social science have largely been about the role of theories in research practice. To this effect, there are two viewpoints. The first point of view is that social science should attempt to develop general laws of the developed theory by applying and developing abstract models. This viewpoint is consistent with research in the natural sciences. The other point of view is that social science should describe the studied phenomena in all their complexity, diversity and empirical reality (Danermark, et al, 2002).

Given the critical realist stance of my study, as well as the chosen methodology, the nature and approach of my study is more consistent with the second viewpoint in that the aim of this study was to describe the empirical reality as closely as possible. My approach towards theory development in this chapter will

therefore be based on this point of view and will draw from the writings of Charmaz (2006) who also had a critical realist perspective in her interpretation of grounded theory.

Charmaz (2006) proposes two paradigms for the interpretation of what theory is, with the positivist interpretation being the most prevalent. Positivists view theory as variables with inter-relationships that are formulated as propositions. The objective of theory is to explain phenomena and to be able to make predictions. The interpretive perspective of what theory is focuses on understanding rather than explaining. An interpretivist theory aims at conceptualising the area studied in order to understand it in abstract terms. Charmaz indicates that a grounded theory contains both positivist and interpretivist inclinations.

Charmaz (2006) identified the following criteria for a grounded theory:

- During the theory development process a continuous fit with the data has to be taken into consideration;
- The grounded theory has to be useful;
- There needs to be conceptual density;
- The theory has to be durable over time;
- The theory has to be modifiable (this is often referred to as transferability); and
- The theory needs to have strong explanatory power

She further indicates that a constructivist grounded theory is part of the interpretive tradition. This would imply that the phenomena of study is emphasised and that it is taken as given that both data and analysis thereof are created from shared experiences between the researcher, participants and sources of data. The developed theory is considered to be an interpretation of the phenomena studied and not reality itself and the final theory is dependent on the researcher's view.

In addition to Charmaz's (2006) interpretation of what a theory is, Corbin and Strauss (2008) indicate that a theory is a set of well-developed concepts that are linked through statements about their inter-relationship that altogether could be used as a framework for explaining the studied phenomena or making predictions.

For Corbin and Strauss (2008) "...theory means a set of well-developed concepts related through statements of relationship, which together constitute an integrated framework that can be used to explain or predict phenomena" (Charmaz, 2006, p. 127).

The theory building process in relation to critical realism is the process of developing plausible explanations of the causal mechanisms that produced the studied phenomena (Bhaskar, 2008). My theory building process will therefore focus on switching from events to causal mechanisms. Danermark et al. (2002) indicate that causal mechanisms that generate an event 'become empirical fact'. The causal mechanisms that will be

described in my theory, are mechanisms that were generating an effect and created the studied phenomena within the social context.

In the next sections, I will present the theory building process that led me to develop the causal mechanism that befittingly explains the underlying dynamics that created the phenomenon of interest that I studied.

## 5.2 THE THEORY BUILDING PROCESS – TWO STAGES

A key challenge in theory building from a critical realist perspective, is to bridge the divide between empirical research and theorizing (Danermark, Ekstrom, Jakobsen, & Karlsson, 2002). In my study, I aimed to address this challenge by firstly using a theoretical process to compare the empirical findings of my study with relevant theory. This theoretical process is Beer's (1966) 'process of scientific analogizing'.

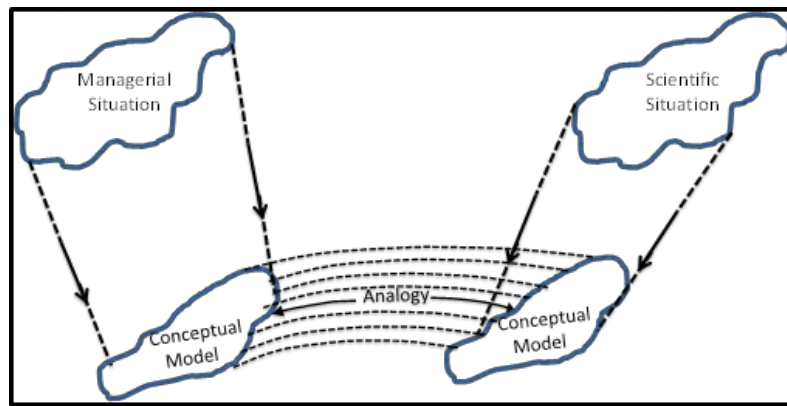
I identified three plausible learning theories, that could potentially explain the process that enabled successful students to undergo a transformative learning experience. The identification of an explanatory learning theory could plausibly give an indication of how the identified core variables operated in order to generate the conceptual change. A conceptual model was developed for each one of the selected learning theories. These conceptual models were then compared against the key variables identified in the empirical study, using Beer's process of scientific analogizing.

At completion of each comparison, a new model was developed that consisted of the isomorphic elements discovered during the process. The model that most closely resembled the social phenomenon that I observed, was selected as my seed theory from which I then developed my own theory.

The second stage of my theory development process consisted of an analysis of the key elements in the seed theory and how it compared with the key variables that I identified. The similarities and gaps were then identified and used to develop my own theory that explains how the causal mechanism looked and how it functioned in order to create transformative learning experiences for engaged, learning-ready students who can manage their own learning. In the next section, I will first provide an explanation of Beer's model.

### 5.2.1 *BEER'S 'PROCESS OF SCIENTIFIC ANALOGIZING'*

According to Beer (1966), the starting point of the process is to develop a conceptual model of the managerial situation being studied. This conceptual model is an interpretation of your perception of the facts in the phenomena of interest. A conceptual model is then selected from a scientific situation that explains how the situation 'really works'. The scientific model is believed to have similarities with the managerial situation. A comparison is then done between these two conceptual models in order to identify similarities between the models and to determine how the behaviour of the one model could provide insight into the other (Beer, 1966). A graphical depiction of the comparative process between the conceptual model of the managerial situation and the conceptual model of the scientific situation is depicted in Figure 28 on the next page.



**FIGURE 28. THE PROCESS OF 'SCIENTIFIC ANALOGIZING' (BEER, 1966, P. 111)**

There are however various levels of comparison that the researcher can engage with in the above model. Beer indicates that the first level of comparison is metaphor. The role of metaphors is however more as a 'poetic device' and their validity could therefore be questionable. Metaphor could however allow for new insights into the managerial situation. For the purposes of this study, metaphors were not deemed to be useful in the theory building process, given the threat to validity should I purely use metaphor to develop my theory.

This first level of comparison is depicted in Figure 29.



**FIGURE 29. THE NATURE OF A SCIENTIFIC MODEL – STEP 1 (BEER, 1966, P. 114)**

In Figure 29, the managerial situation was defined as Management Development in AngloGold Ashanti. This was related to the scientific situation of adult learning theories. Three learning theories were selected and the process of 'scientific analogizing' was followed for each learning theory. I therefore applied Beer's process three times, each time using the same managerial situation, but a different learning theory.

The second level of comparison is analogy. Beer (1966) however stated that the relevance of a particular analogy cannot easily be demonstrated conclusively and therefore any analogy must always be open to criticism. The second level of comparison is depicted in Figure 30 on the next page.

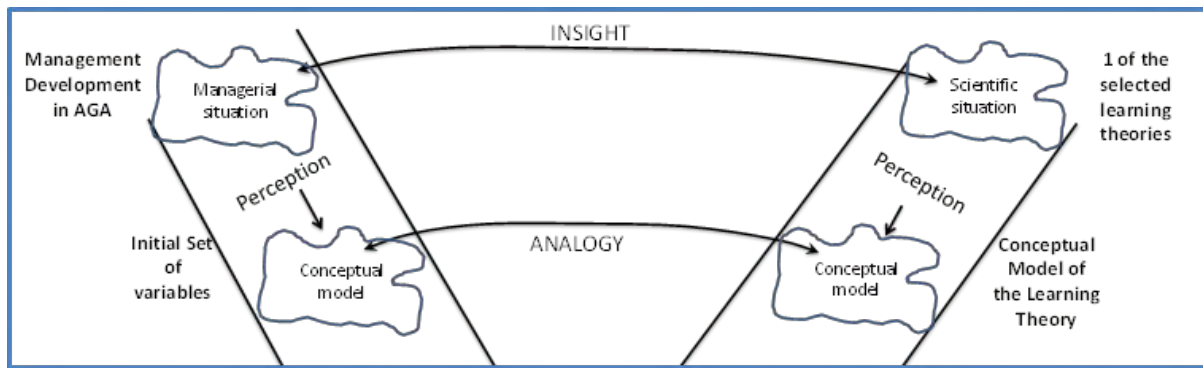


FIGURE 30. THE NATURE OF A SCIENTIFIC MODEL – STEP 2 (BEER, 1966, P. 114)

Figure 30 illustrates that for this study, the conceptual model developed from the managerial situation (Management development in AngloGold Ashanti) consisted of the initial variables identified as a result of phases one and two of this study. The conceptual model of the scientific situation consisted of three models that were developed from three selected learning theories. Analogy was not used as a level of analysis in this process because it was indicated as a philosophical rather than a scientific comparison (Beer, 1966).

The third level of comparison was of particular importance in my process. Beer (1966) referred to the third level of comparison as ‘the identify itself’. The third level of comparison creates almost identical conceptual models of the managerial situation as well as the scientific situation so that conclusions of the one could potentially hold for the other. This is referred to as isomorphism. This step is depicted in Figure 31 below.

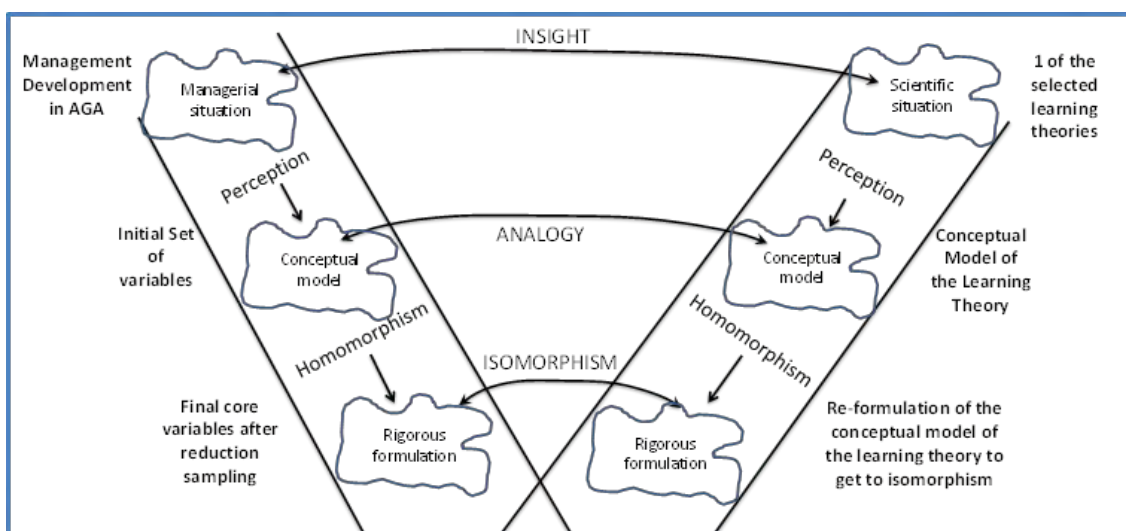


FIGURE 31. THE NATURE OF A SCIENTIFIC MODEL – STEP 3 (BEER, 1966, P. 114)

Figure 31 illustrates that the third level of comparisons was between the final core variables that were identified at completion of reduction sampling and a re-formulation of the conceptual models of each selected learning theory. This level of analysis was the core focus of this process in my study.

The final step in this homomorphic model is to develop the new scientific theory that explains the initial managerial situation. This new scientific theory would constitute the theory developed for this study. This step is depicted in Figure 32 below.

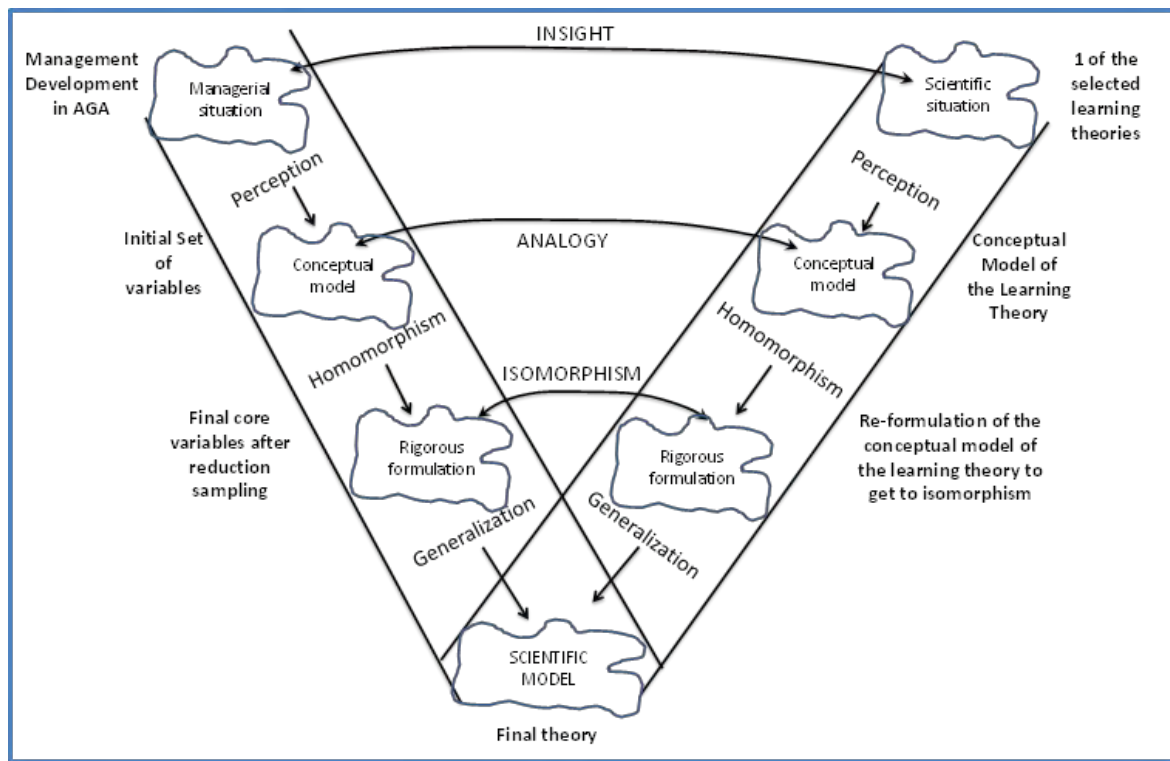


FIGURE 32. ADAPTED FROM BEER'S ACCOUNT OF SCIENTIFIC MODELLING (BEER, 1984, P. 114)

The final theory as depicted in Figure 32 will be used as the seed theory from which I develop my final theory in stage two of the theory building process. In the next section I will indicate how I selected the three learning theories to be used as scientific models in Beer's process.

### 5.3 SELECTION AND EXPLANATION OF LEARNING THEORIES (THE 'SCIENTIFIC MODELS')

The managerial situation identified in this study could be described as follows:

The managers that were successful on these programmes developed an increased level of social astuteness as well as a higher level of cognitive flexibility. The learning process had the ability to affect personal transformation and facilitated the development of managers within the organisational social structure. This facilitated the co-creation of managers within the ethos of AGA that was appropriate for the organisation in terms of its management development needs. The programmes in addition developed the manager's courage to take action in their organisations through the engagement of the learning process. Taking more action in the organisation contributes towards the managers' learning that could increase their ability to develop effective action strategies.

Beer's process will be applied three times to the managerial situation described above. Each time, using a different learning theory as the scientific situation. Given the focus of this study, the selection of learning theories focused exclusively on adult learning theories. In addition, the core variable associated with the conceptual change was 'Extent of the Transformative Learning Experience'. This core variable clearly indicates that the conceptual change that occurred included behavioural change in the managers of AGA, within a social context. The change in behaviour due to a learning process is depicted in the following statement from Merriam et al. (2007, p. 276) - "...learning is a change in behaviour". It was therefore decided to select learning theories that consider behavioural change.

Besides the behavioural change that was identified in the individual participants, it was also identified that this change was co-created and not an individual change process. It would therefore be appropriate to include learning theories from the social constructivist perspective. The last criteria for the selection of the learning theories was to include learning theories in an action research learning paradigm, due to the nature of the underlying teaching pedagogy of the programmes. The selected learning theories are therefore as follows:

- Mezirow's Transformative Learning Theory;
- Argyris and Schön's Organisational Learning Theory; and
- Kolb's Experiential Learning Theory.

These learning theories are perceived to be scientific models in the sense that they are well developed and well cited, as determined through a Google Scholar search:

- Mezirow's Transformative Learning Theory (more than 12 700 citations);
- Argyris and Schön's Organisational Learning Theory (more than 22 900 citations); and
- Kolb's Experiential Learning Theory (more than 72 100 citations).

For each of the above theories, I developed a conceptual model that depicted the key elements of the learning theory. I then compared these conceptual models against the key variables that I identified in my study. Checkland and Scholes (1999) uses the notion of conceptual models in soft systems methodology. Checkland and Scholes use it in order to build conceptual models of 'purposeful human activity systems' that represents a particular viewpoint of an identified stakeholder. Checkland and Scholes propose that the model consists of bubbles that include activities. The activities are linked by arrows which depict logical dependencies. Checkland and Scholes' conceptual models are intended to depict how stakeholders view a situation and not how it really is.

Beer (1966, p. 100) refers to a model as a 'mental representation of the world'. He further states that models 'may be more or less accurate' and the more accurate they are, the better they will represent the behaviour of what is modelled. Models could therefore be used to experiment and predict the likely behaviour of what is modelled.

For the purposes of this study, a conceptual model will therefore be interpreted as a means to depict the key concepts and their relationships within the selected learning theories. These conceptual models will not be the exact learning theory, but will aim to capture the key concepts and how they work together to create learning as depicted in the particular theory.

In the next section, I will explain the selected learning theories and conceptual models that I developed for the purpose of my study.

### 5.3.1 *MEZIROW'S TRANSFORMATIVE LEARNING THEORY*

Transformative Learning could be defined as the process of changing ones frame of reference. (Mezirow, 1997) Mezirow defined a frame of reference as follows:

“A frame of reference encompasses cognitive, conative and affective components, may operate within or outside awareness and is composed of two dimensions: a habit of mind and resulting points of view” (Mezirow, 2009, p. 92).

According to Mezirow, transformative learning is the process by which a person changes his or her frames of reference on a particular issue in order to make it more “inclusive, discriminating, open, reflective and emotionally able to change.” (Mezirow, 2009, p. 92). Mezirow (2003) indicated that such a new frame of reference is better than the prior frame of reference, as it could most probably result in the generation of beliefs or opinions that would better guide actions.

The transformative learning process could therefore be described as the process by which a person critically re-assesses his/her frames of reference for their suitability to deal with the current situation and choosing to change the frame of reference for a more preferred frame of reference that could best assist in dealing with the situation. These transformations could be sudden, or could be cumulative, resulting in a change of frames of reference and resultant habits (Mezirow, 2009).

The first part of the conceptual model that captures this part of the theory is depicted in Figure 33 on the next page.



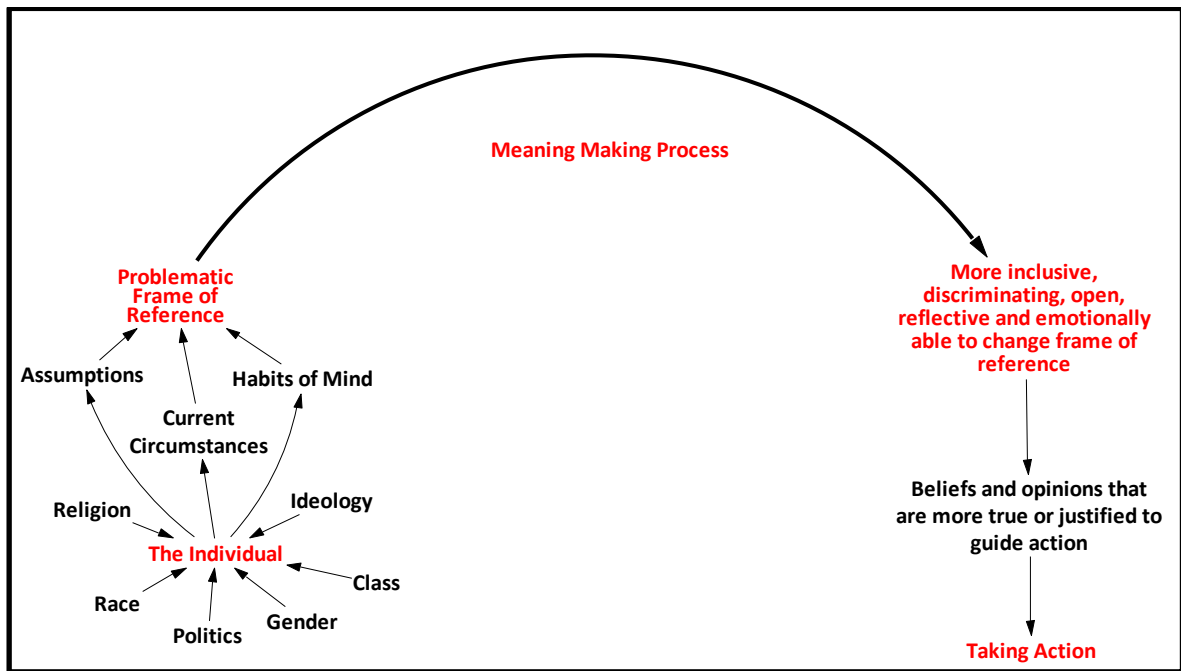


FIGURE 33. CONCEPTUAL MODEL OF MEZIROW'S TRANSFORMATIVE LEARNING THEORY - STEP 1

Changing a frame of reference could include any of (or a combination of) the following four processes of learning (Mezirow, 1997):

- elaboration on an existing perspective or point of view;
- developing a new perspective;
- transforming an existing perspective; or
- becoming aware of and changing generalised biases

The second part of the conceptual model that captures this part of the theory is depicted in Figure 34 on the next page.

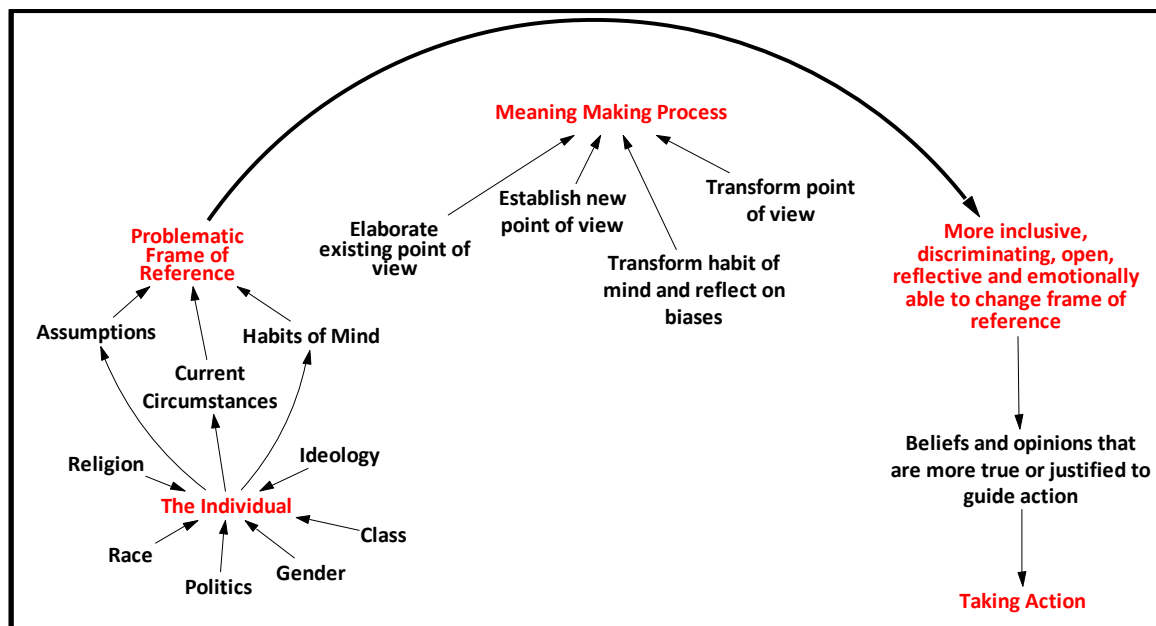


FIGURE 34. CONCEPTUAL MODEL OF MEZIROW'S TRANSFORMATIVE LEARNING THEORY - STEP 2

Mezirow (2000, p. 5) in addition referred to the learning process as a 'meaning making process' and states that "Learning is understood as the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one's experience as a guide to future action." It is however important to note that the meaning making process is affected by culture.

Weick (1995), in a similar vein, referred to frames of reference as cognitive structures or mental models that are used as theories of action in the sense-making process. It could therefore be inferred that these frames of reference influence one's actions in your context. The transformative learning process therefore has the potential of changing an individual's actions.

The key elements of Transformative Learning, as described above, are captured in the complete conceptual model depicted in Figure 35 on the next page.

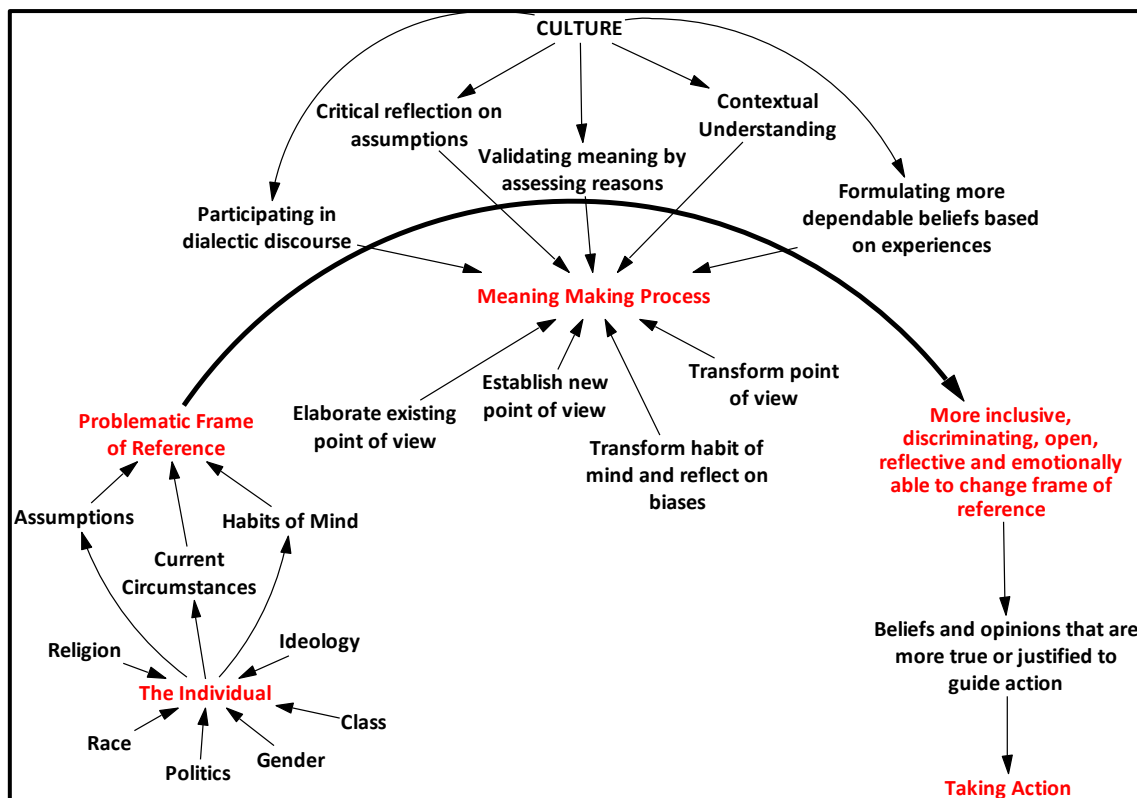


FIGURE 35. KEY ELEMENTS OF TRANSFORMATIVE LEARNING THEORY

The main emphasis of Mezirow's Transformative Learning Theory is on the change that occurs in an individual based on the change in frame of reference. A comparison between the key elements of Transformative Learning Theory and the results of this study clearly indicate that Transformative Learning Theory could provide theoretical depth to the core variable that was identified in phase one of the study: 'Extent of the Transformative Learning Experience'. This learning theory provides a sound explanation of the conceptual change that occurred in terms of the change in the managers' frames of reference from which they manage.

The next section will provide an explanation of the conceptual model that was developed for Argyris and Schön's Single- and Double-Loop Learning theory.

### 5.3.2 ARGYRIS AND SCHÖN'S SINGLE- AND DOUBLE-LOOP LEARNING

According to Argyris and Schön (1996) an individual has mental maps and governing variables that guide the individual's actions in terms of how they plan and implement their actions. Very few people are however aware of their maps or the theories that drive their actions. One could therefore deduce that there is a separation between theory and action.

There is also a distinction between two types of theories of action, namely:

- espoused theories – that are theories that we use to speak to other people about our actions; and

- theories-in-use – that are theories implicit to what we do that govern our behaviour

There is always a gap between our espoused theories and our actual theories-in-use. If one could reduce the gap between these two theories, then one would be more effective (Argyris, 1995). The key elements of the above are depicted in Figure 36.

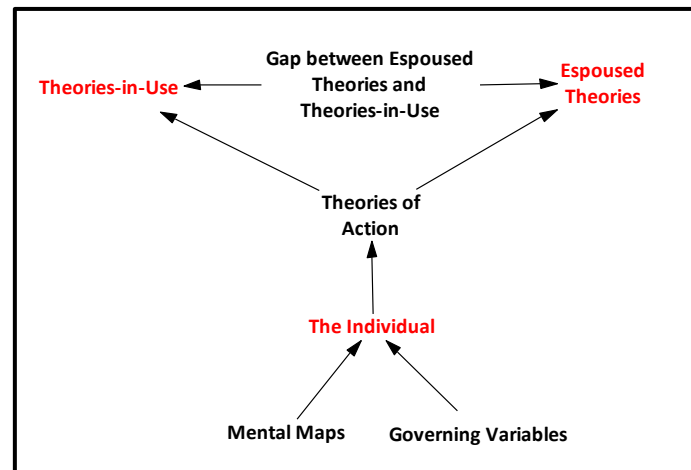


FIGURE 36. ARGYRIS AND SCHÖN'S LEARNING THEORY: STEP 1

It should however be noted that espoused theories do not produce any action, it is only theories-in-use that result in an action strategy and resultant actions taken. Based on the actions taken, there will be consequences. Learning occurs from a mismatch between the intended and actual consequences of the individual's actions. According to Argyris (1995), learning occurs when an individual detects and corrects errors, or when a match is found between the intended and actual outcomes of an action. There are two ways in which errors are corrected:

- Changing the behaviour that resulted in the error; and
- Changing the underlying thinking or mental maps that guided the actions taken that resulted in the error.

The first approach to correcting an error requires what he refers to as single-loop learning, whereas the second manner in which to correct an error requires double-loop learning (Argyris, 1995).

Single-loop learning occurs when the identified mismatch between intended and actual outcome is corrected by focusing on improving the action strategies (Argyris, 1995). Single-loop learning is depicted in Figure 37 and highlighted by the purple arrows.

Double-loop learning occurs when the identified mismatch between intended and actual outcomes is scrutinised by focusing on questioning the governing variables that informed the individual's theories of action.

Should there be a match between intended and actual consequences, the theory-in-use is confirmed. Double-loop learning is depicted in Figure 37 and highlighted by the green arrows.

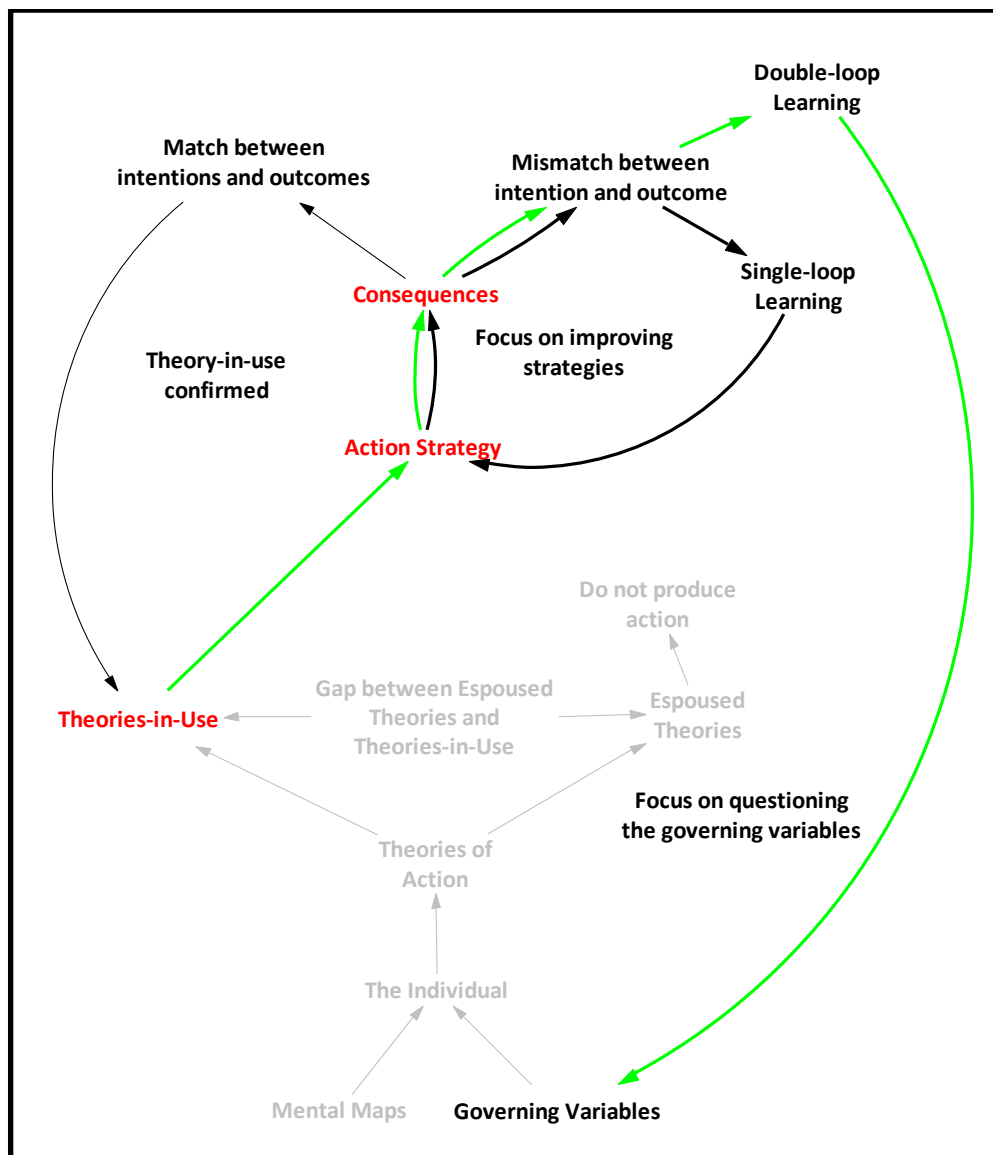


FIGURE 37. ARGYRIS AND SCHÖN'S LEARNING THEORY: STEP 2

In addition to explaining single- and double-loop learning from an individual's perspective, Argyris and Schön (1996) further assessed the impact of this learning theory on organisational learning. Two models are proposed that describe how theories-in-use either inhibit or enhance double-loop learning. Model 1 theories-in-use is highly internally focused and disregards the importance of multiple perspectives in problem contexts. Action strategies associated with Model 1 theories-in-use are focused on controlling the environment and protection of self and others. To this effect, model 1 theories lead to organisational 1 learning systems that are highly focused on improving existing action strategies and therefore inhibit double-loop learning. Organisational 1 learning systems are depicted in Figure 38 on the next page.

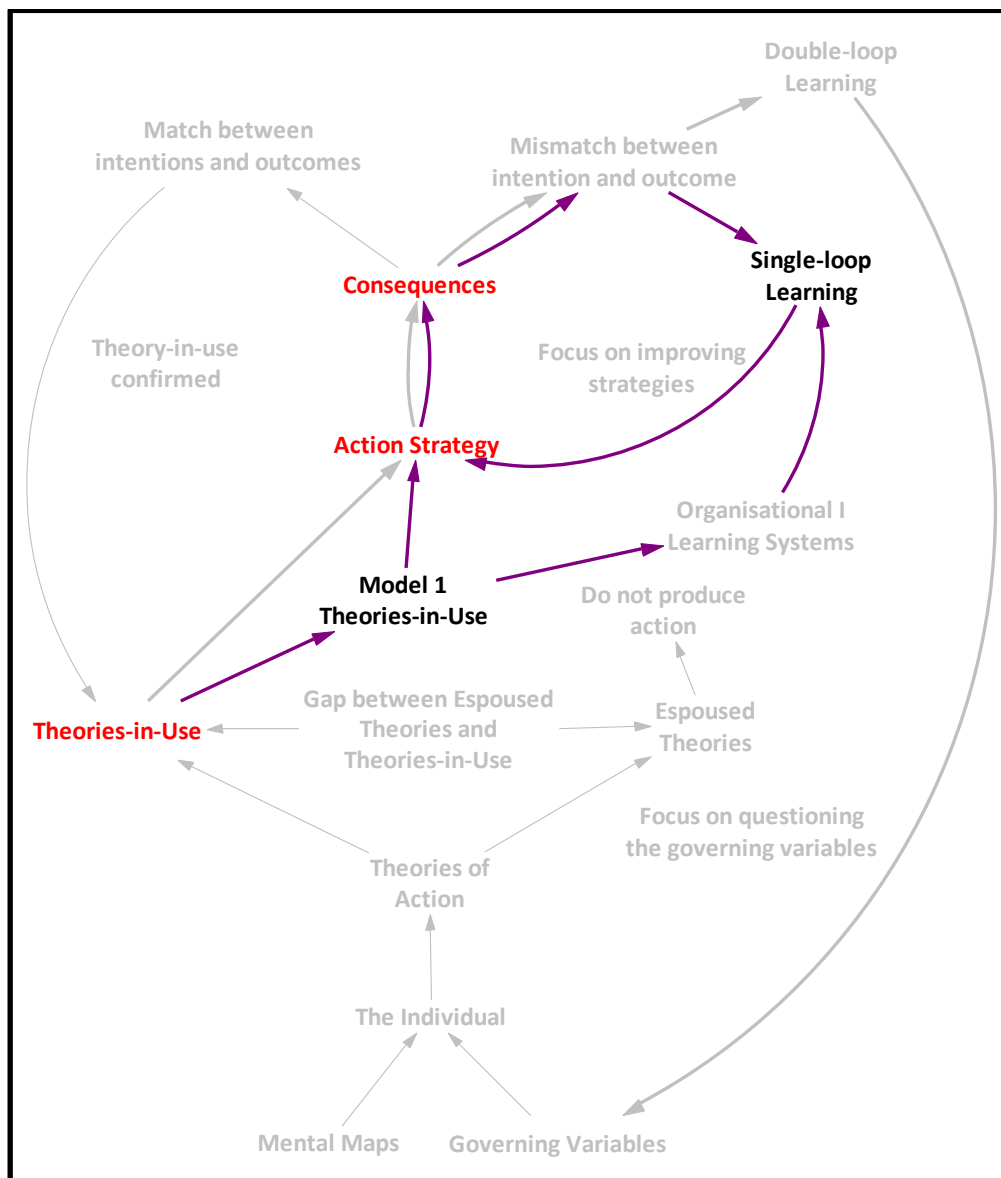


FIGURE 38. ARGYRIS AND SCHÖN'S LEARNING THEORY: STEP 3

In contrast to model 1 theories-in-use, model II theories-in-use draws on good quality data in the decision-making process, as well as including views and opinions of other participants. Theories are made explicit and continuously tested. Argyris (1995) indicated that Model II theories can be seen as 'dialogical' and aim at emphasising mutual goals, open communication and the combination of advocacy and enquiry. In this regard, model II theories-in-use leads to Organisational II learning systems that encourage double-loop learning. Model II theories-in-use and Organisational II Learning systems are depicted in Figure 39 on the next page.

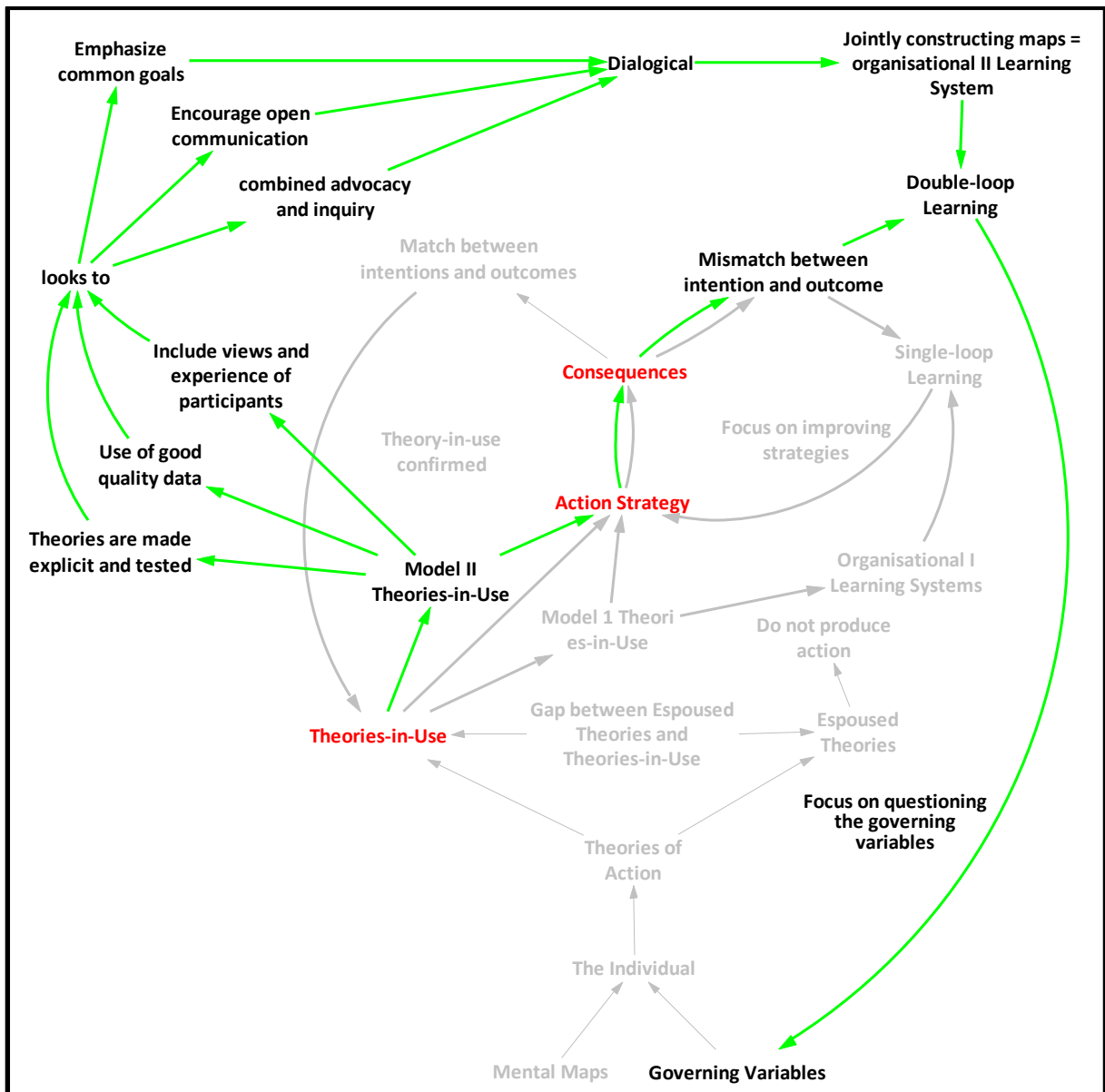


FIGURE 39. ARGYRIS AND SCHÖN'S LEARNING THEORY: STEP 4

The complete conceptual model is depicted in Figure 40 on the next page for ease of reference.

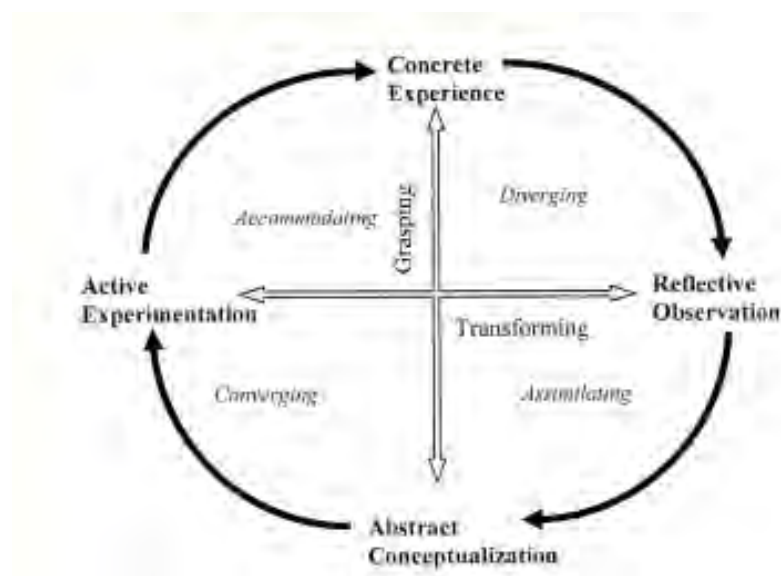




4. "Learning is a holistic process of adaptation"
5. "Learning results from synergistic transactions between the person and the environment"
6. "Learning is the process of creating knowledge".

Kolb (1984, p. 41) stated that learning is "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience"

Given the above, Kolb developed a model that depicts the learning process that transforms knowledge experience into knowledge. This model is depicted in Figure 41 below.



**FIGURE 41. KOLB'S EXPERIENTIAL LEARNING CYCLE (ARMSTRONG & FUKAMI, 2008, P. 44)**

In Figure 41, four key elements of the learning process are identified. Kolb indicated that learning commences with a concrete experience. During the learning process, each aspect depicted in the cycle is engaged. Experiences form the basis for observations and reflections. The reflections are interpreted and conceptualised into abstract concepts that provide an explanation for the experiences from which implications for action could be drawn. The implications can then be tested, which forms the basis for the next concrete experience. Kolb further determined that the learning cycle is influenced by the individual's learning style. Based on the individual's learning style, the individual would have a preference for one of the four quadrants depicted in Figure 41.

A concept that Kolb explored in conjunction with learning styles, is the notion of learning spaces that build on Kurt Lewin's Field Theory. Learning spaces elaborate on "the holistic, dynamic nature of learning style and its formation through transactions between the person and environment." (Armstrong & Fukami, 2008, p. 47). In addition to Lewin's theory, three other theoretical frameworks inform ELT's learning space concept, namely

Bronfenbrenner's work on the ecology of human development, situated learning and Nonaka and Konno's theory of knowledge creation (Armstrong & Fukami, 2008).

Kolb continued to discuss the concepts of team learning and organisational learning and how they relate to individual learning, drawing from several other studies and research reports. The key aspect emphasised, based on the studies in relation to team learning, is that it was found that teams with a diversity of learning styles performed best. Regarding organisational learning, it was found that managers from different functional areas in the organisation have different cognitive and emotional orientations which result in differences in terms of their preference for learning styles. Kolb therefore concluded that:

"At the organizational level, learning is a process of differentiation and integration focused on mastery of the organizational environment. " (Armstrong & Fukami, 2008, p. 56).

Based on the above explanation of Kolb's ELT, a model that captures the key concepts relating to Kolb's theory was developed. This conceptual model is depicted in Figure 42.

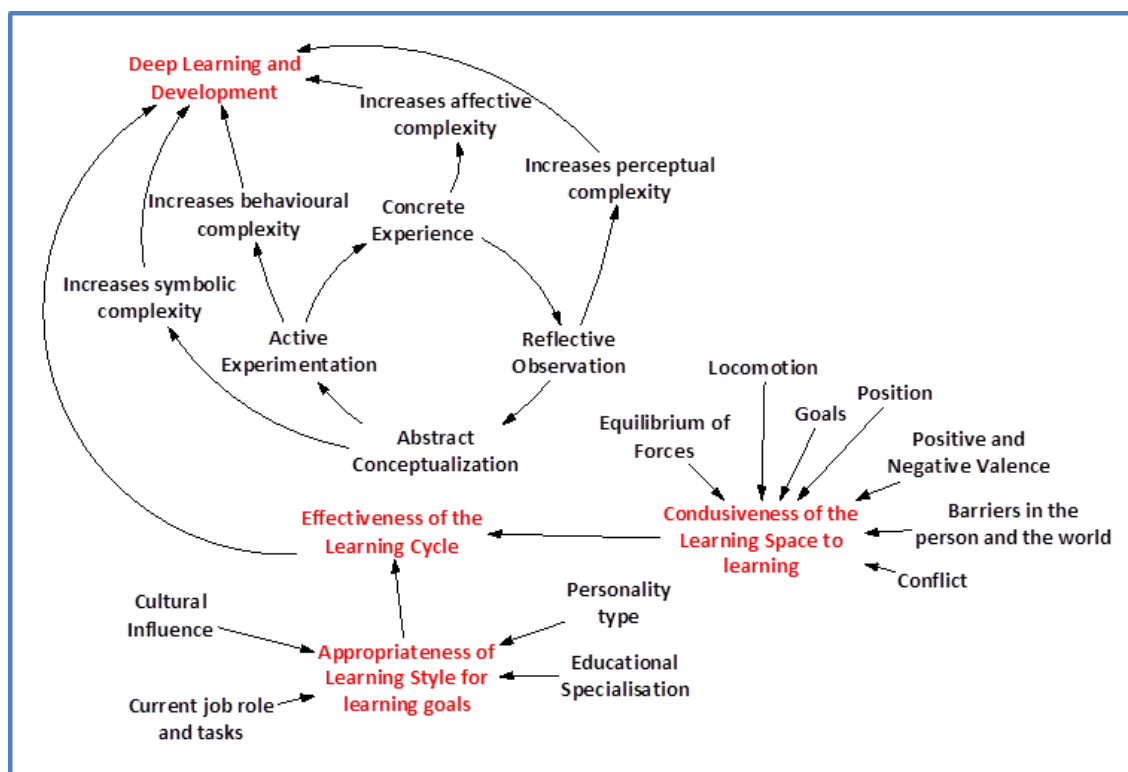


FIGURE 42. KEY CONCEPTS OF KOLB'S EXPERIENTIAL LEARNING THEORY (ARMSTRONG & FUKAMI, 2008)

The next phase of the theory building process was to use Beer's (1966) process of 'Scientific Analogizing' to make a comparison between each learning theory and the results of this study. This process was aimed at identifying similarities and differences between the selected theories and the empirical findings of this study. This will enable me to identify the learning theory that best explains the findings of my study.

## 5.4 STAGE 1 - APPLICATION OF BEER'S PROCESS OF 'SCIENTIFIC ANALOGIZING'

During the application of Beer's (1966) process of 'Scientific Analogizing' I compared the conceptual model of each learning theory against the core variables identified in my study.

Each conceptual model developed of the three selected learning theories was re-developed to form a more rigorous model in order to get to isomorphism. In this regard, it was required to get alignment between concepts used and the key relationships between the identified core variables.

During the application of Beer's process, consideration was given to the fit between concepts in the learning theories, as well as the concepts identified in my study. In this process, the concept 'fitness' was used as a descriptor in order to describe the relationship between the dimensions of the key variables, and those in the theory. Glaser and Strauss (1967, p. 238) defined fitness as one of the four properties that a theory should possess. This implies that the theory must fit the context in which the theory was developed. A theory that fits the context should not include the researchers own '...ideals and the values of his occupation and social class... ."

Glaser and Strauss (1967, p. 239) concluded that "...a grounded theory that is faithful to the everyday realities of a substantive area is one that has been carefully *induced* from diverse data...". The term fit in the following section is therefore used in relation to this description and will therefore imply that the concept identified in the learning theory is closely related to the concept identified in the empirical study and sufficiently represents the substantive area without distorting or forcing the data.

In the following sections, I will explain the outcomes of the application of Beer's process to each one of the learning theories.

### 5.4.1 MEZIOROW'S TRANSFORMATIVE LEARNING THEORY

The process of scientific analogising focused firstly on a high-level comparison between concepts in the conceptual model of the learning theory, as well as the variables identified in my study. Thereafter, a comparison was made between the antecedents, attributes and consequences of the variables identified in this study and the conceptual model of the learning theory. The outcomes of this comparison will be presented in the next section.

#### High-Level Comparison between the two Models

A high-level comparison between Mezirow's transformative learning theory and the identified variables in this study revealed a good fit. All the variables identified in my study, could be directly linked to key concepts in Mezirow's (2003) theory. In the context of my study however, some of the variables were identified as outcomes of the learning process and not initially enablers of the learning process. It is however

acknowledged that these variables over time would develop and re-enforce the learning process. It was therefore not seen as problematic that these variables were initially identified as outcomes of the learning process.

The high-level matching of key concepts in Mezirow's theory and the key variables of this study is depicted in Figure 43.

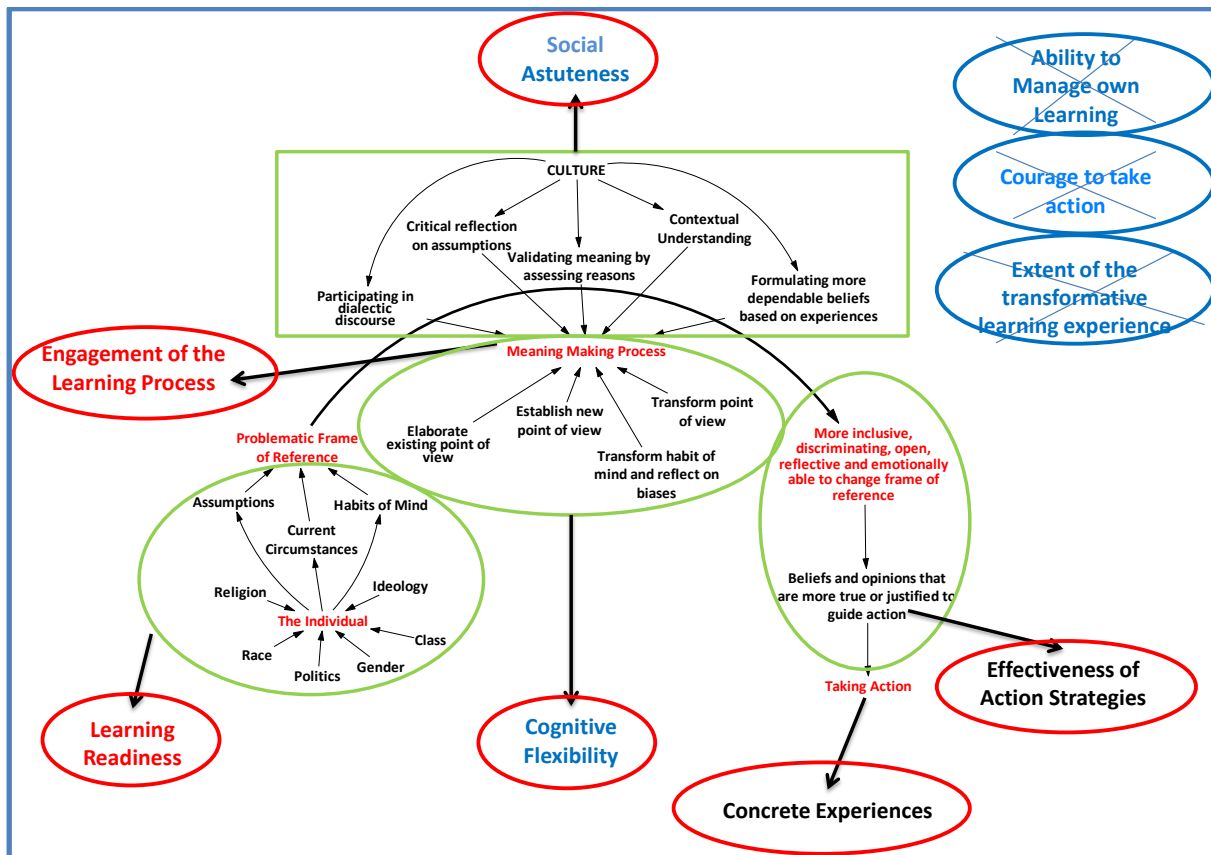


FIGURE 43. HOMOMORPHIC COMPARISON BETWEEN MEZIRROW'S TRANSFORMATIVE LEARNING THEORY AND THE KEY VARIABLES IDENTIFIED IN THIS STUDY

In Figure 43, the key variables circled in red were deemed sufficiently represented in the theory. The variables circled in blue outline were not sufficiently represented in the theory. The high-level comparison therefore revealed a fair fit of the key variables identified in this study, with Mezirow's Transformative Learning Theory.

In the next section, the outcomes of a more detailed comparison made between the antecedents, attributes and consequences of the variables identified in this study and the conceptual model of the learning theory will be presented.

### Lower-Level Comparison between the two Models

The next step focused on a lower level of abstraction in that the properties and dimensions of the variables were matched with the concepts in Mezirow's (2003) theory. This facilitated the process of isomorphism. The detail of this process is depicted in Appendix D.

A summary of the findings of this process is presented below, with the emphasis on explaining how each variable fits with Mezirow's Transformative Learning Theory (Mezirow, 2003).

- **Ability to Manage own Learning:** The theory refers more to the individual's current cognitive state and not so much the circumstances that may affect his/her ability to manage the learning process. This variable therefore does not have a good fit with Mezirow's transformative learning theory and was removed from the development of the new scientific model.
- **Cognitive Flexibility:** This variable has a good fit with the theory. It has many similarities regarding the issues that affect the meaning making process. The key difference however is that this concept was an outcome of the learning process in this study, whereas it is an enabler of the meaning making process in Mezirow's theory. It could however be deduced that cognitive flexibility will re-enforce the learning process continuously as it develops over the duration of the management development programme and will therefore become an enabler of the process. This variable therefore has a good fit with the theory and was included in the new scientific model by replacing those similar concepts in Mezirow's theory with this variable.
- **Extent of the transformative learning experience:** The theory does not explore the antecedents of the meaning making process. The attributes of this variable however elaborates on the elements of a specific meaning making process. It provides empirical data of the elements of the personal transformation. The consequences of this variable provide empirical data of a specific personal transformation that took place. The theory however does not focus on a personal transformation in the context of an organisation; it focuses on an individual level, whereas this variable was defined as a personal transformation in the context of an organisation. This variable therefore does not have a good fit with Mezirow's theory and was therefore eliminated from the new scientific model that was developed.
- **Social Astuteness:** The antecedents and attributes of this variable have a good fit with the theory in that it further explores the elements of culture that impact on the meaning making process. The consequences of this variable have a fair fit with the theory. This dimension however goes beyond just a frame of mind; it also identifies what follows as a consequence of a change in frame of mind. In this study, social shrewdness, similar to cognitive flexibility was an outcome of the learning process and not an enabler as it would appear in Mezirow's theory. This variable however still has a good fit with the theory and was included in the new scientific model by replacing the concepts in the learning theory that were similar to this variable.

- **Courage to take action:** This variable has a poor fit with the theory in that the theory does not explore issues beyond the changed frame of mind. It identifies 'taking action' as a concept, but does not explore it any further. One could therefore conclude that this variable contributes to Mezirow's theory in that it clearly identified the requirement for courage in order to take action. Without taking action in a new frame of mind, the person will not be able to test the usefulness of the newly established frame of mind.
- **Concepts in the research problem and question.** The concepts represented in the research problem and question were compared to the conceptual model of the learning theory. It was found that learning readiness had a good fit with the key elements identified around the individual and the individual's current circumstances. This variable was therefore included in the model. Engagement of the learning process also had many similarities in relation to the sense making process depicted in the scientific model and was therefore included in the model by replacing the existing concepts. The last two concepts in the research question focused on the effectiveness of action strategies and number of concrete experiences created. These had a good fit with two concepts already contained in the scientific model and they were therefore also included in the model.

The final step focused on generalisation between the key concepts and variables in order to develop a new scientific model. This analysis focused on integrating the common elements into a new scientific model. The scientific model developed based on Beer's (1996) Homomorphic Model is depicted in Figure 44 below.

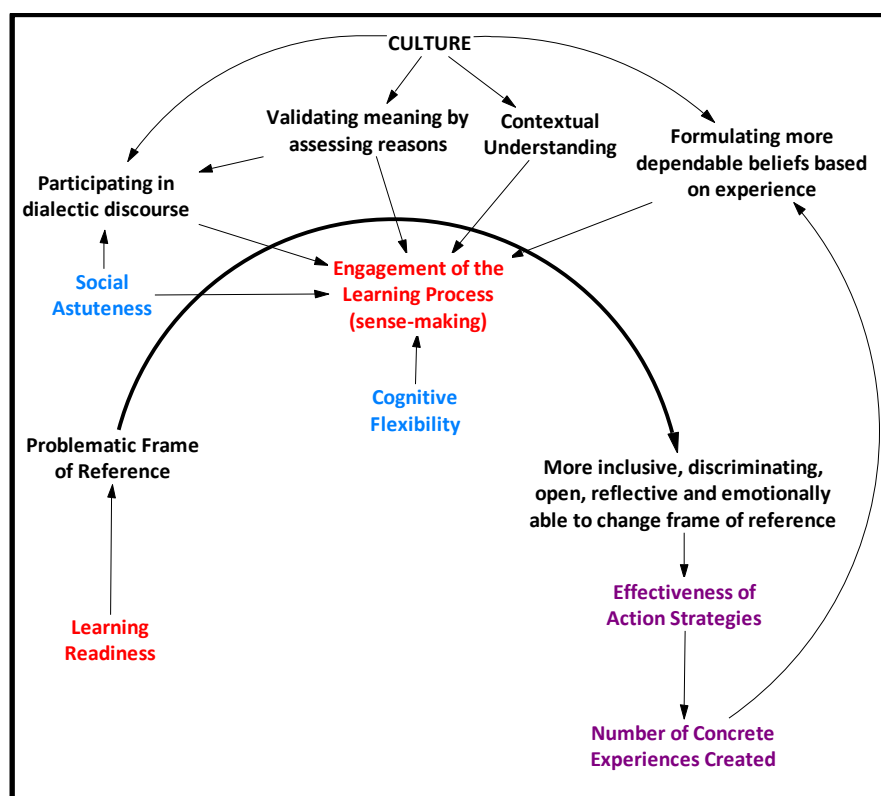


FIGURE 44. NEW SCIENTIFIC MODEL DEVELOPED, BASED ON MEZIRROW'S TRANSFORMATIVE LEARNING THEORY

In the above model, the black concepts are the original concepts that were included in the conceptual model developed for the learning theory. The blue concepts are those identified in the empirical study that were deemed a good/fair fit with the concepts in the learning theory. These concepts replaced those in the learning theory that they sufficiently represented. The red concepts were those identified in the conceptual framework that were used to formulate the research question. The purple concepts were those concepts contained in the research question that defined effective management practices.

The new scientific model developed in the process of comparing the key variables identified in this study with the conceptual model developed from Mezirow's (1997) transformative learning theory explains the studied phenomena to some extent, but there are clear gaps in this model in that it does not include all the variables that were identified in this study. This new conceptual model therefore does not sufficiently form the basis for the development of my theory.

In the next section, the application of Beer's process using Argyris and Schön's (1996) Single- and Double-Loop Learning will be presented.

#### 5.4.2 *ARGYRIS AND SCHÖN'S SINGLE- AND DOUBLE-LOOP LEARNING*

A high-level comparison between Argyris and Schön's learning theory and the identified variables in this study revealed a fair fit. Only three of the variables identified in this study, could not be directly linked to key concepts in the theory. The fit was in particular more appropriate than Mezirow's theory, given that this learning theory includes organisational learning as well as the individual learning component. The next section will illustrate the high-level comparison between concepts identified in this study and concepts included in the conceptual model developed of this theory.

##### *High-Level Comparison between the two Models*

The high-level matching of key concepts in Argyris and Schön's theory and the key variables in this study are depicted in Figure 45 on the next page.

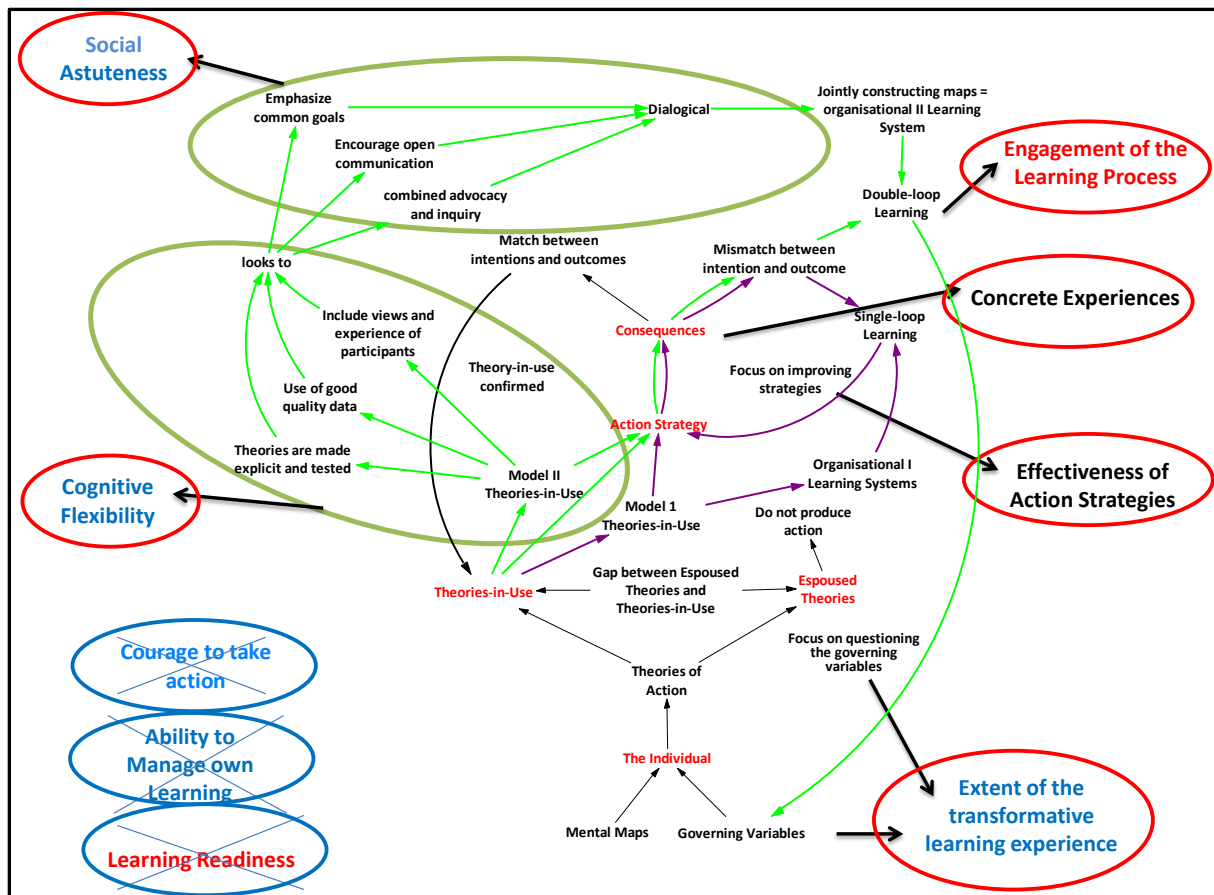


FIGURE 45. HOMOMORPHIC COMPARISON BETWEEN ARGYRIS AND SCHÖN'S LEARNING THEORY AND THE KEY VARIABLES IDENTIFIED IN THIS STUDY

Figure 45 above indicates that three of the variables identified in this study could not be matched with concepts in Argyris and Schön's (1996) Learning Theory. These variables are circled in blue outline. The variables that could be matched with Argyris and Schön's Learning Theory are circled in red outline in Figure 45 above.

In the next section, the results of a lower-level analysis between the concepts will be presented.

### Lower-Level Comparison between the two Models

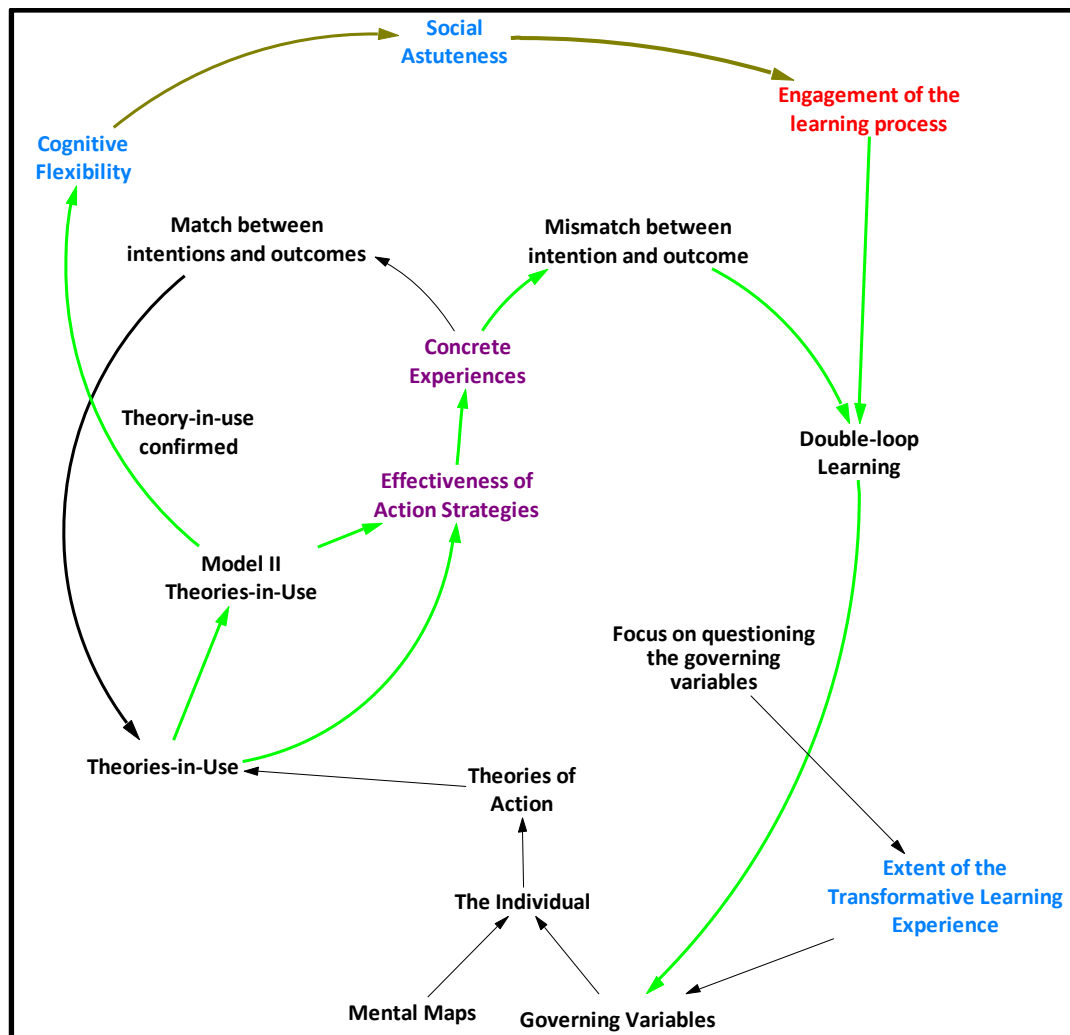
The next step focused on a lower level of abstraction in that the properties and dimensions of the variables were matched with the concepts in Argyris and Schön's theory. This facilitated the process of isomorphism. The detail of this process is depicted in Appendix D.

A summary of the findings of this process will be presented below, focusing on explaining how the variables identified in this study are represented in Argyris and Schön's theory.



- ***Ability to Manage own Learning:*** This variable has a poor fit with the theory. The main link between this variable and the theory is the need for effective communication and the use of communities of practice. The theory seems to assume that the student can effectively manage his/her learning. This variable was therefore excluded from the new scientific model.
- ***Cognitive Flexibility:*** This variable has a good fit with the theory. The antecedents of cognitive flexibility have a significant overlap with the key concepts contained in Model II theories-in-use. Most of the attributes of cognitive flexibility are included in the Model II Theories-in-use in some form or another. The theory however does not identify specific consequences of the learning process. It mainly identifies the change in governing variables as an outcome of double-loop learning. Due to this fit, cognitive flexibility was included in the new scientific model.
- ***Extent of the transformative learning experience:*** The antecedents of this variable are not explicitly represented in the theory but are implicit in that it is an antecedent of the whole process. The attributes of this variable have a good fit with the theory, the theory however does not take into consideration whether the personal change is appropriate to what the organisation requires. The consequences of this variable do not have a good fit with the theory, as the theory does not describe the nature of the change after questioning the governing variables. This variable overall has a fair fit with the theory and was included in the new scientific model where appropriate.
- ***Social Astuteness:*** This variable has a good fit with the theory, particularly with the elements of organisational II learning systems. It could therefore be deduced that effective organisational learning requires a certain degree of social astuteness. This variable was included in the new scientific model.
- ***Courage to take action:*** The antecedents of this variable have a fair fit with the theory. The theory however takes it for granted that the participants will feel safe to implement their action strategies. There is no clear reference in the theory to the desire to learn and the need for managerial support. The attributes of this variable have a good fit with the theory. The theory however does not take into consideration that the individual must be able to confront uncertainty and be open to implementing ideas. The consequences of this variable do not have a good fit with the theory as the theory does not indicate the consequences of taking action. Overall, this variable therefore has a poor fit with the theory and was eliminated from the new scientific model.
- ***Concepts in the research problem and question.*** The concepts represented in the research problem and question were compared to the conceptual model of the learning theory. It was found that learning readiness had a poor fit with the theory and could not be included in the new model. Engagement of the learning process also had many similarities with the concept relating to jointly constructing maps and was therefore included in the model by replacing the existing concepts. The last two concepts in the research question focused on the effectiveness of action strategies and number of concrete experiences created. These had a good fit with two concepts already contained in the scientific model and they were therefore also included in the model.

The final step focused on generalisation between the key concepts and variables in order to develop a new scientific model. This analysis focused on integrating the common elements into a new scientific model. The scientific model developed based on Beer's (1966) Homomorphic Model is depicted in Figure 46 below.



**FIGURE 46. NEW SCIENTIFIC MODEL DEVELOPED, BASED ON ARGYRIS AND SCHÖN'S LEARNING THEORY**

Figure 46 illustrates how the concepts identified in this study and the concepts in the scientific model were matched to develop a new scientific model. In the above model, the black concepts are the original concepts that were included in the conceptual model developed of the learning theory. The blue concepts are those identified in the empirical study that were deemed a good/fair fit with the concepts in the learning theory. These concepts replaced those in the learning theory that they sufficiently represented. The red concepts were those identified in the conceptual framework that were used to formulate the research question. The purple concepts were those concepts contained in the research question that defined effective management practices.

The new scientific model developed in the process of comparing the key variables identified in this study with the conceptual model developed from Argyris and Schön's (1996) learning theory explains the studied phenomena better than Mezirow's (1997) theory could. There are however still concepts that were identified in this study that could not be matched with concepts in this theory. This new conceptual model could possibly assist in developing my theory, should the last model not be more appropriate. In the next section, the application of Beer's process using Kolb's Experiential Learning Theory will be presented.

### 5.4.3 KOLB'S EXPERIENTIAL LEARNING THEORY

A high-level comparison between Kolb's (1984) Experiential Learning Theory and the identified variables in this study revealed a good fit. All, except two variables identified in this study, could be directly linked to key concepts in the theory to some extent. In the next section, the results of this comparison will be presented.

#### High-Level Comparison between the two Models

The high-level matching of key concepts in Kolb's theory and the key variables of this study are depicted in Figure 47 below.

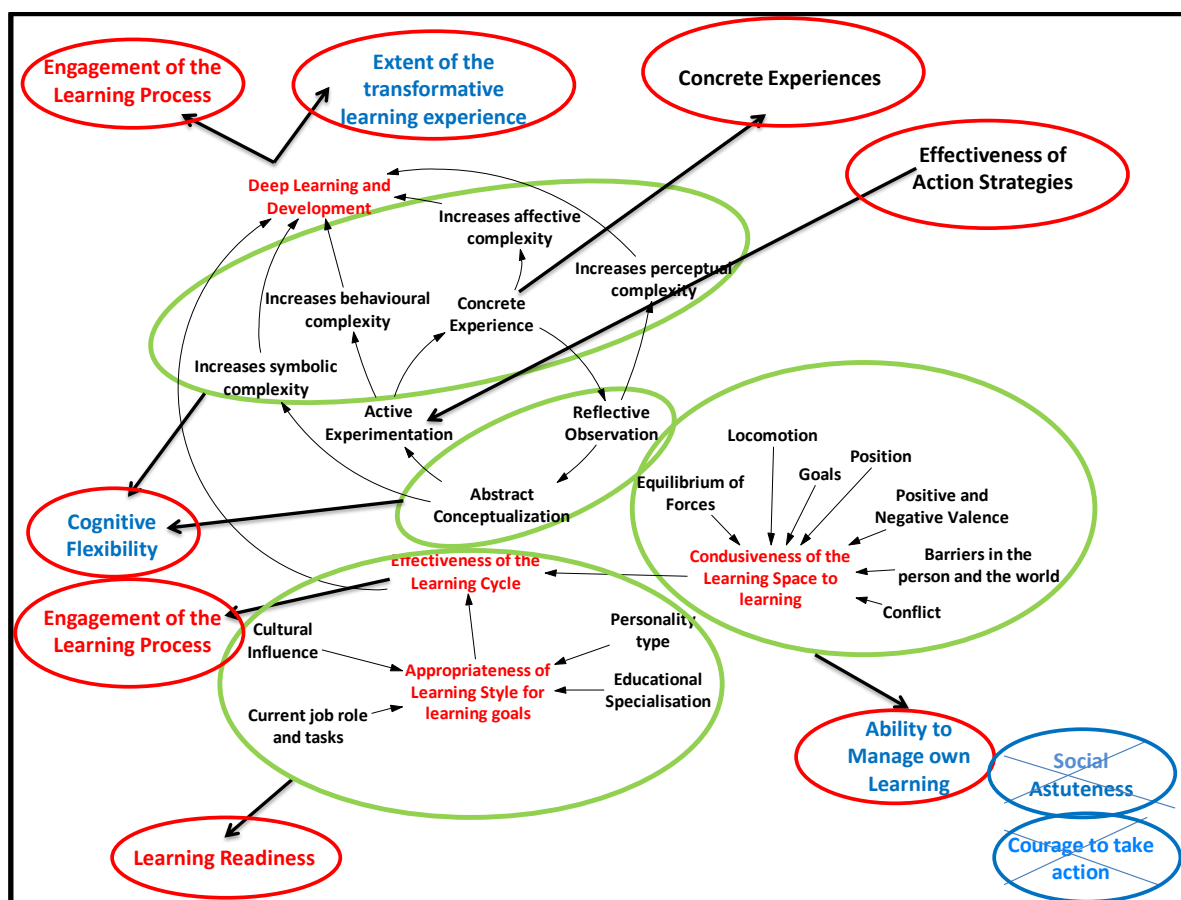


FIGURE 47. HOMOMORPHIC COMPARISON BETWEEN KOLB'S EXPERIENTIAL LEARNING THEORY AND THE KEY VARIABLES IDENTIFIED IN THIS STUDY

In Figure 47 on the previous page, the variables that were identified as having a good fit with Kolb's ELT are circled in red outline, whereas those variables that could not be sufficiently matched are circled in blue outline.

In the next section, the results of a lower-level analysis between the concepts will be presented.

### Lower-Level Comparison between the two Models

The next step focused on a lower level of abstraction in that the properties and dimensions of the variables were matched with the concepts in Kolb's (1984) theory. This facilitated the process of isomorphism. The details of this process are depicted in Appendix D.

A summary of the findings focusing on the gaps identified is presented below.

- **Ability to Manage own Learning:** The antecedents of this variable have a good fit with the theory. The main focus in the theory regarding the conduciveness of the learning Space to Learning is however on the personal aspects and not so much on the organisation's influence. The attributes of this variable also have a good fit with the theory. The theory however focuses more on factors that influence the learner as opposed to actions that the learner takes to create a conducive learning space. The consequences of this variable have a fair fit with the theory. The theory however does not focus on the role of the organisation in learning in terms of the benefit of learning and the provision of learning opportunities. It could therefore be concluded that this variable has a good fit with the theory in relation to the individual and it was included in the new scientific model.
- **Cognitive Flexibility:** The antecedents of this variable have a good fit with the theory. The theory however does not address the application of theories in the learning process, or the sharing of information. The theory focuses on the individual and not on group learning. The attributes of this variable have a good fit with the theory. All the attributes are represented in the theory. The consequences of this variable have a good fit with the theory. All the consequences are represented in the theory. This variable overall has a good fit with the theory and was included in the new scientific model.
- **Extent of the transformative learning experience:** The antecedents of this variable have a fair fit with the theory. The theory however assumes that the learner will recognise the value of learning and accept change as part of the learning process. These could be serious inhibitors of learning if they are not present. The attributes of this variable have a fair fit with the theory. The theory however does not explicitly indicate that reflection based on the concrete experience includes reflection on a personal level. The consequences of this variable have a good fit with the theory. All the consequences are presented in the theory in some form or the other. This variable therefore has a fair fit with the theory and was included in the new scientific model.
- **Social Astuteness:** This variable in total does not have a good fit with the theory. The antecedents of this variable have a fair fit with the theory. The theory however does not emphasize the social aspect

of learning, but rather emphasizes these skills as an outcome of the learning process. It was therefore decided to exclude this variable in the new scientific model.

- **Courage to take action:** Only the antecedents of this variable have a good fit with the theory. This variable has a poor fit with the theory and was therefore excluded from the new scientific model.
- **Concepts in the research problem and question.** The concepts represented in the research problem and question were compared to the conceptual model of the learning theory. It was found that learning readiness had a good fit with the theory as many of the key elements of learning readiness were also included in this theory. Learning readiness was therefore included in this model. Engagement of the learning process also had many similarities with the concept relating to deep learning and development and it was therefore included in the model by replacing the existing concepts. The last two concepts in the research question focused on the effectiveness of action strategies and number of concrete experiences created. These also had a good fit with several concepts already contained in the scientific model and they were therefore also included in the model.

The final step focused on generalisation between the key concepts and variables in order to develop a new scientific model. This analysis focused on integrating the common elements into a new scientific model. The scientific model developed based on Beer's (1966) Homomorphic Model is depicted in Figure 48 below.

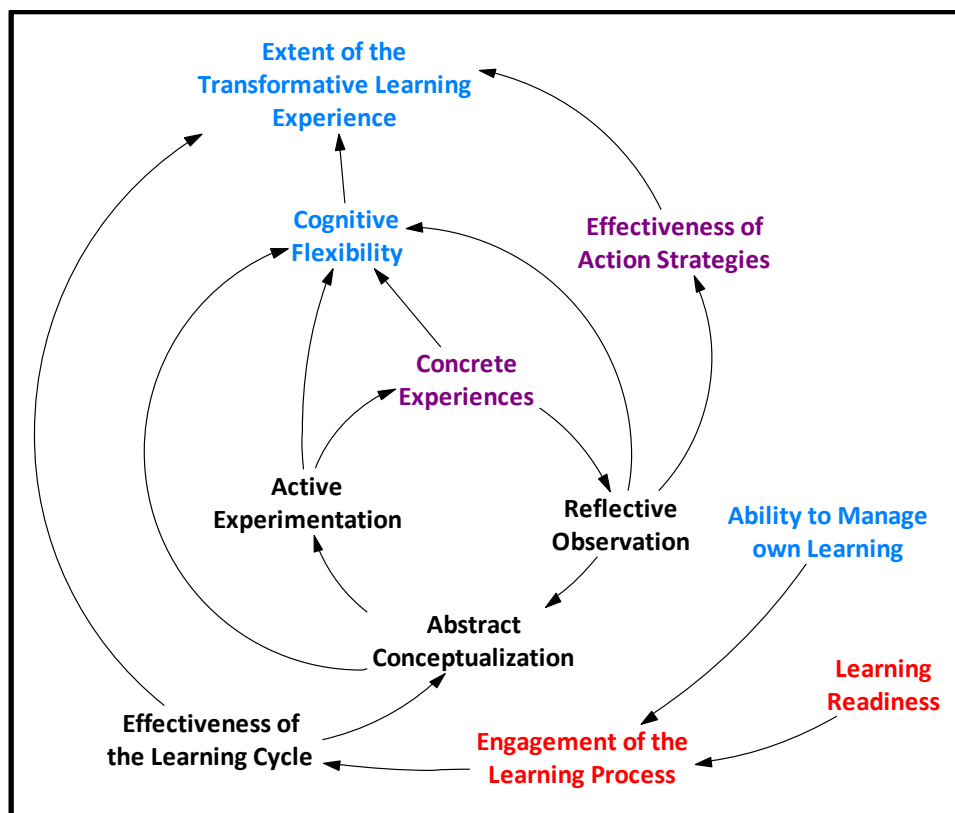


FIGURE 48. NEW SCIENTIFIC MODEL DEVELOPED, BASED ON KOLB'S EXPERIENTIAL LEARNING THEORY

Figure 48 illustrates how the concepts identified in this study and the concepts in the scientific model were matched to develop a new scientific model. In the above model, the black concepts are the original concepts that were included in the conceptual model developed of the learning theory. The blue concepts are those identified in the empirical study that were deemed a good/fair fit with the concepts in the learning theory. These concepts replaced those in the learning theory that they sufficiently represented. The red concepts were those identified in the conceptual framework that were used to formulate the research question. The purple concepts were those concepts contained in the research question that defined effective management practices.

The new scientific model developed in the process of comparing the key variables identified in this study with the conceptual model developed from Kolb's Experiential Learning explains the studied phenomena the best of all three selected learning theories. There were only two variables that could not be matched with the conceptual model developed of this learning theory. These two variables were 'courage to take action' and 'social astuteness'.

Kolb's experiential learning theory at this stage provides the best description of the learning process that I observed.

#### 5.4.4 *SELECTION OF THE SEED THEORY*

A summary of the fit between the variables identified in this study and the three selected learning theories is depicted in Table 3 below.

**TABLE 3. SUMMARY OF THE FIT BETWEEN KEY VARIABLES AND LEARNING THEORIES**

Variable	Mezirow's Transformative Learning Theory	Argyris and Schön's Single- and Double-Loop Learning	Kolb's Experiential Learning Theory
Courage to take action	Poor fit	Poor fit	Poor fit
Ability to manage own learning	Poor fit	Poor fit	Good fit
Cognitive Flexibility	Good fit	Good fit	Good fit
Social Astuteness	Good fit	Good fit	Poor fit
Extent of the Transformative Learning Experience	Poor fit	Fair fit	Fair fit

The results from the above analysis indicate that none of the three selected learning theories could fully explain the learning process that enabled the conceptual change to occur. Most notably, none of the selected learning theories fully addressed the requirement for learners to have courage to implement experimental actions that facilitate learning. Kolb's ELT however explains the phenomena the most accurately in

comparison to the other two learning theories. I therefore adopted Kolb's ELT as my seed theory from which to develop my own theory that will answer my research question.

In the next section, I will present my theory in the form of a causal model that I developed that represents the 'real' and explains the underlying mechanism that generated the studied phenomena. Where appropriate, reference will be made to similarities and differences between Kolb's theory and my final theory.

## 5.5 STAGE 2 – MY THEORY: COURAGEOUS LEARNING THEORY (CLT)

The final theory that I developed as a result of the above process will be presented in the form of a causal model. This causal model will depict the variables as well as the relationships between the variables in order to provide an answer to the research question of this study, namely:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

The explanation of the final theory will focus on each variable and relationship in turn, thereby building up the causal model one step at a time, and in doing that, answering the research question.

### 5.5.1 LEARNING READINESS INCREASES ENGAGEMENT OF THE LEARNING PROCESS

The first part of the research question was aimed at exploring the role of learning readiness and engagement of the learning process in the context of the studied phenomena. In this study it was found that an increase in learning readiness will in turn increase engagement of the learning process. This relationship is depicted in Figure 49 below.

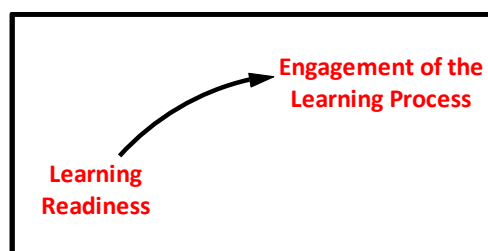


FIGURE 49. COURAGEOUS LEARNING THEORY – STEP 1

During the process of scientific analogizing it was found that learning readiness as defined in this study, had significant similarities with two concepts defined in Kolb's theory. These are appropriateness of learning style for learning goals, and conduciveness of the learning space to learning (Kolb, 1984). The key elements contained in these two concepts in Kolb's theory correlate with a student's physical and psychological readiness to undertake the learning process.

A key element relating to physical readiness that was highlighted in this study is the need for the student to be in a job that will allow the student to implement learning in the workplace. It therefore contributes towards learning readiness if the student is in some form of supervisory position. Kolb in a similar vein indicated that the appropriateness of learning style is influenced by personality type, the educational specialisation and current job role and tasks. (Kolb, 1984) It could therefore be concluded that current job role and tasks contribute towards the physical readiness of a student. In addition to the job role and tasks, this study found that another element that contributes towards the student's physical readiness is the amount of work experience that a student has. The analysis done on the cognitive abilities of top performers clearly illustrated that most top performers have more than 10 years' work experience. It could therefore be inferred that the job profile (that includes work experience) increases the ability to engage the work context as learning platform.

In addition to a suitable job, support from the organisation, and in particular, support from the student's line manager was found to be a key element of physical learning readiness. Both the organisation and the line manager must be committed to provide the required support for the student to succeed in the learning process. This support amongst others also includes logistic support.

Kolb (1984) in addition relates psychological learning readiness for a particular learning experience to the appropriateness of the learning style for the learning goals. In the context of this study, the definition of learning readiness however, did not include the learning style of the individual, but it rather emphasised the factors motivating the student to engage the learning experience. Kolb refers to these factors as the conduciveness of the learning space to learning.

Learning readiness in a psychological context includes the student's inner motivation for engaging the learning process. In the context of this study it was found that the need to add an academic qualification was a key motivating factor for several of the students. This motivational factor could be ascribed as motivation associated with a particular life goal (Smith, 1996, 1999, 2010), as well as the fact that this programme positioned the students for promotional opportunities in their organisation. This element is similar to the 'teachable moments' as defined by Knowles (1980). Learning readiness would therefore imply that the student is at a teachable moment in his/her life due to the factors described above.

Kolb's experiential learning theory highlighted that conduciveness of the learning space as well as appropriateness of learning style and goals will drive the effectiveness of the learning cycle. The conduciveness of the learning space as described by Kolb, has significant similarities with the psychological readiness factors described above. In addition, the appropriateness of learning style and learning goals as described by Kolb have significant similarities with physical readiness as described above (Kolb, 1984). It could therefore be inferred that learning readiness will increase engagement of the learning process.



A student that is therefore in an appropriate job with sufficient support from his/her organisation and appropriate psychological motivational factors will be in a good position to engage the learning process. The nature of this programme requires a particular level of dedication and commitment from a student and learning readiness and engagement in the learning process are therefore significant contributors towards a successful learning experience on these management development programmes.

The next relationship that was identified in this study was that engagement of the learning process increases the students' courage to take experimental action in their organisation. The next section will explain the findings relating to this relationship.

### 5.5.2 ENGAGEMENT OF THE LEARNING PROCESS INCREASES THE COURAGE TO TAKE ACTION

Many authors have written extensively on the need for learners to be engaged in order for learning to occur (Fenwick, 2001). In the context of experiential learning, learning occurs through taking action in order to create concrete experiences (Kolb D. A., 1984). In this study, it was found that engagement of the learning process increased the students' courage to take action. This relationship is depicted in Figure 50 below.

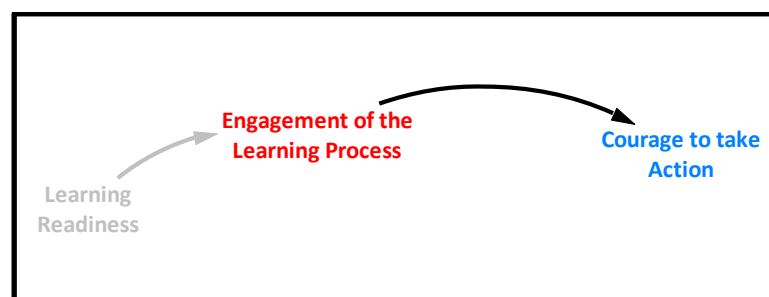


FIGURE 50. COURAGEOUS LEARNING THEORY – STEP 2

This relationship could not be justified with either of the selected learning theories and was not sufficiently addressed in the literature on adult learning.

In the context of this study, the learning process requires the student to diagnose problems and develop and implement solutions to deal with the identified problem. It was found that students who embrace and fully engage the learning process, developed courage to implement experimental actions in their organisation. This could be attributed to the fact that the management development programme through the years became entrenched in the organisational culture and that a perceived level of tolerance for experimentation whilst on the academic programme developed within the organisation. The academic programme therefore provides the student with a 'safety umbrella' to experiment in their organisation, which increases their courage to take action. An example of this is illustrated in the following quotes:

*"The level of skills I gathered and the experience I have build to complete any future project was increased. I have made mistakes on the way but the PDCA cycles kept me on track and I managed to sort the mistakes out*

very quickly. My line manager was actively involved and it even increased our level of communication about the project.” IMDP2; ARL Project

*“In the past I would have given these types of responsibilities over to my department head, but since I became more aware of my role as a manager, I made a couple of decisions based on facts. Some of these decisions were not necessarily the best (my one colleague pointed out that I have overlooked the possible impact of doing away with the training center field on the Educos interface) but the fact is that I am more readily giving my opinion than in the past. This boosted my self esteem and opposed to a year ago when I wanted to leave the department because I was feeling that I no longer could make an impact and in general felt useless, I now feel in general that I get acknowledgement for what I do and worthy of being a part of my department and the company.”* IMDP4, WR1

In addition to organisational tolerance, the programme also equips students with theories and tools that assist them in designing and implementing actions in their organisation. Having theories and tools increases students’ confidence to experiment. This is illustrated in the following quotes:

*“As part of the ARL project, I developed three Small Wins during this module. I choose a subject which will demand more time to be mature before having specific results. But the Small Wins helped me to organize my mind, to improve my perception on actual practices and gave me ability to develop the structure of my objective. I felt frustrated in not getting the results themselves (so my last Small Win’s slides couldn’t be completed) but the process helped me a lot. “* MDP4, RP4

*“Theory by itself teaches nothing, neither application by itself. However, learning is the result of interplay between theory and application; and it is said that the proof of theory is in its successful application. As a Manager, I must see myself as experimenter who leads learning, and not dictator who imposes control.”* MDP4; RP4

Additional empirical evidence found in this study that illustrates courage in the face of the unknown is illustrated by the following quotation from a student:

*“What I have learnt is that to become a leader, I have to become a decision maker, It is acceptable with the information that is known to me at the moment. I have observed people provide reason for not making decisions, to wait for more information, more options, more opinions. However becoming a real leader means taking actions”*

Given the evidence found in this study, it could therefore be concluded that engagement of the learning process increases courage to take action.

A reference from the literature that supports the quote above was from Yeo and Gold (2010) who stated that:

“Acting is also a demonstration of one’s confidence and courage in responding to potential ambiguities and risks. Acting is also learning personified where the two are intricately bound. As most would agree, learning without action is dead and action without learning is premature death.” (p. 148).

In the quote above, it is clear that courage is required to act and that learning without action is incomplete. This dynamic found in this study was deemed a new contribution to Kolb’s Experiential Learning Theory that will be explored in more detail in chapter six.

This increase in courage to take action will contribute towards the number of concrete experiences that are created. This relationship will be explained in the next section.

### 5.5.3 *COURAGE TO TAKE ACTION INCREASES THE NUMBER OF CONCRETE EXPERIENCES CREATED*

It was found that as the courage to take action increases, the number of concrete experiences created will also increase. This relationship is depicted in Figure 51 below.

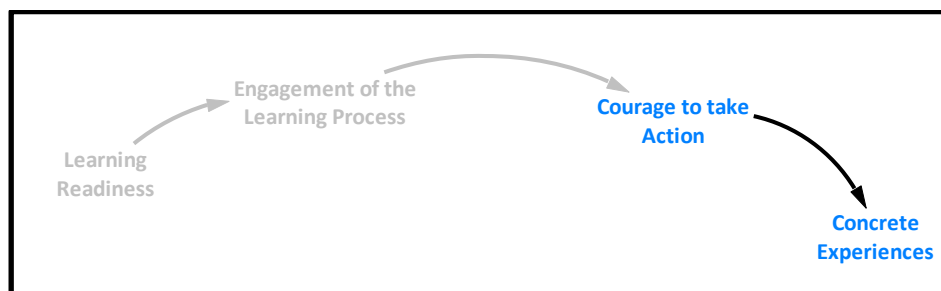


FIGURE 51. COURAGEOUS LEARNING THEORY – STEP 3

Kolb (1984) stated that learning commences with a concrete experience. These concrete experiences could be simulated experiences created as part of a learning programme, or it could be a real life or workplace experience that the learner has either been part of creating or that he/she experienced (Fenwick, 2001). In the context of this study, the concrete experiences are mostly initiated as a result of the inter-module assignment that students have to complete. Students are required to identify a problem area, develop a solution and then implement the solution. The academic programme requires students to provide empirical evidence of the implementation of these solutions.

In this study, it was found that the courage to take action will drive the number of concrete experiences created, in that the initial actions taken to fulfil the academic requirements often lead to the realisation that further actions could be taken to improve the situation. The more courage a student has to implement experimental actions, the more experimentation will occur, resulting in more concrete experiences created. A quote that supports this relationship is as follows:

*“This is another area that I could have a direct impact on – however due to the time constraints this was not a feasible project for the purpose of my IMDP project. I will be addressing this issue as a project in the near future by applying my learnings from IMDP” IMDP2, ARL Project*

In the above quote, it is clear that the student has identified improvement actions that can be implemented even beyond the scope of the programme.

These concrete experiences, similar to those in Kolb’s (1984) theory, form the basis of observations and reflection for learning. Following each concrete experience, reflection occurs during which observations are interpreted and conceptualised into abstract concepts that provide an explanation for the experiences. These explanations provide the basis from which implications for further action could be drawn (Kolb D. A., 1984). In the context of this study it was found that reflective observation and abstract conceptualisation referred to by Kolb, lead to a transformative learning experience. This was the next relationship that was identified and it will be explained in the next section.

#### 5.5.4 *THE NUMBER OF CONCRETE EXPERIENCES CREATED DRIVES THE EXTENT OF THE TRANSFORMATIVE LEARNING EXPERIENCE*

Significant empirical evidence was found that supports the role of reflection in personal development. In accordance with Kolb’s theory, reflection follows concrete experiences. It would therefore imply that if the number of concrete experiences that a person creates increases, the events that one can reflect on will also increase. Reflection will therefore increase which could enhance the possibility of changing one’s frame of reference. Mezirow’s (1997) ELT however best captures this concept in the meaning making process that results in the development of new frames of reference (thereby contributing towards a transformative learning experience).

A particular quote that indicates how concrete experiences, followed by reflection lead to a transformative learning experience is as follows:

*“When analyzing the lessons that I had logged I realized, after some reflection, that the lessons I had taken ownership of, were directly linked to my personal experience. I could identify with the lesson. By grouping the lessons into clusters with a common causal thread, I was able to see the link between what I was learning and particular issues that had become a source of preoccupation at work. By comparing my management theory (see POWD week 7 page 1) to these preoccupations that had been identified using the human – human communications paradigm, (see POWD week 7 page 2), I could see that they were inextricably linked. It was an interesting realization that the reason for me logging a particular lesson was because I was able to attach that lesson to some personal experience in my work situation.” PP; MDP1; PP1*

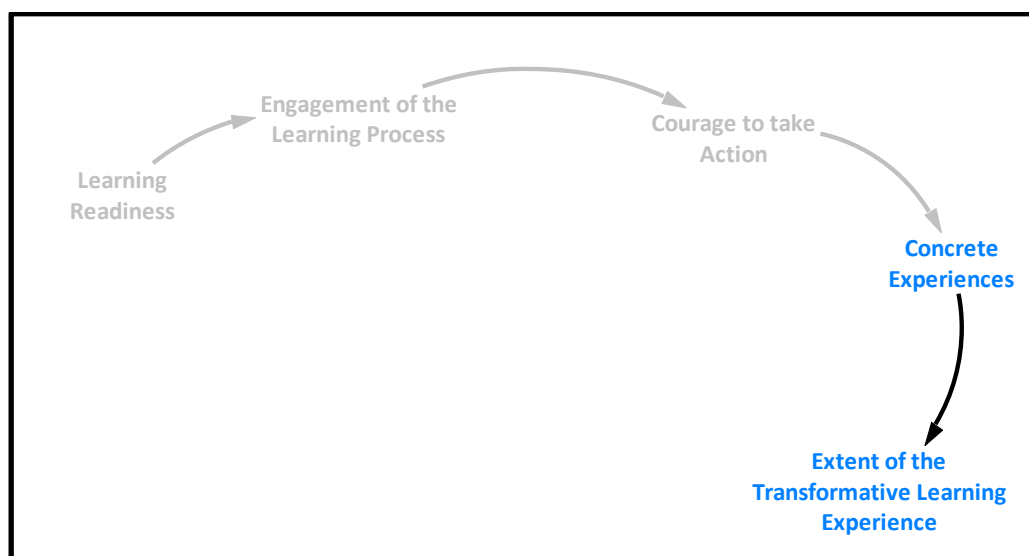
In the above quote, the student clearly came to the realisation that his personal learning was as a result of personal experiences he had in his workplace. The link to the transformative learning experience is displayed in the student's increased ability to link his learning to his workplace experiences and develop plausible theories about his experiences. Another instance that indicates how reflection on the learning process leads to a transformative learning experience is illustrated in the following two quotes:

*"I changed since I entered to the IMDP and started to learn in a different way what I already knew. And I changed since I learned new concepts and competencies that I have to develop in order to keep updated. "* TE;

IMDP2; RP

*"While I emphasis the difficulties of this process so far and the challenges that the IMDP programme present, I cannot understate the importance and value that this program offers. At only half way through I can already see a difference in myself and in the ways in which I interact with people on both a personal and professional level. My family have even commented on the fact that I have changed. I have come back to work more motivated and focused. I experience things with an open mind and seem to find myself relating everything back to one of the IMDP learning's. Often I find myself either reflecting back on or projecting forward possibly perceptions and challenges that occur as a result of my own Ladder of Inference, sources of motivation or critical thinking."* RB; IMDP5; RP

Given the evidence provided above, it is clear that reflection on the concrete experiences increased the extent of the transformative learning experience. This relationship is illustrated in Figure 52 below.



**FIGURE 52. COURAGEOUS LEARNING THEORY – STEP 4**

As indicated before, the extent of the transformative learning experience is similar to the outcome of the meaning making process explained in Mezirow's (1997) theory, in that the students develop the ability to establish new points of view and transform their habits of mind into a more inclusive frame of reference. This

change in habits of mind in turn increases the student cognitive flexibility. This was the next relationship that was identified and it will be explained in the next section.

#### 5.5.5 *THE EXTENT OF THE TRANSFORMATIVE LEARNING EXPERIENCE INCREASES COGNITIVE FLEXIBILITY*

According to Spiro et al (1988) the cultivation of cognitive flexibility requires approaches to learning that stress the importance of multiple representations, view learning as multi-directional and encourage the adaptation of knowledge to fit various situations. Anecdotal evidence was found that intimated that the learning process that the students were engaged in, complied with these criteria in order to develop cognitive flexibility. This is also due to the transformative nature of the learning experience.

In defining the term, a transformative learning experience was defined as a change in 'frame of reference' or mental models. It is more than just acquiring new knowledge; it is also about changing what one already knows. A clear acknowledgement of this factor is illustrated in the following two quotes:

*"Analyzing my critical incidents, I have come to appreciate the contribution of others whose ideas are different from mine. I become richer in ideas when I add those of others to mine. Multiple perspectives become practical in problem solving and gaining the trust of people in my networks." CF; IMDP4; RP*

*"The activity of logging critical incidents helped me to see patterns in my behaviour that hitherto, I had not paid much attention. Analysing those incidents help me to appreciate that often, I do not consider the perspectives of others, and the fact that they could be more right. This causes me to react negatively, which affects effective communication under those circumstances. Because poor communication skills are applied, this affects my relationships with others, and this negatively impacts on team spirit"* No name; IMDP3, RP

In the above quotes, it is evident that the students acknowledge how reflection on their personal experiences changed their perspectives. The students intimated a transformative learning experience through engagement of the learning process and thereby being able to appreciate multiple perspectives.

In addition, the following two quotes illustrate that the student is able to operate at a higher level of work complexity, thereby showing increased cognitive flexibility:

*"From a value adding perspective I believe that my time thus far engrossed in IMDP projects, has helped me focus more on my purpose and role within the organisation. I fell that I have a better concept of where I currently fit in and most importantly where I want to be going in my career and in my future. From this value adding perspective it is now obvious to me that I can have a personal strategy for success that is aligned with the organisational strategy to create value. This increased clarity of my role within the organisation has also improved my understanding of the possible challenges that may face me as a manager in the future. I have a*

*newfound respect for the responsibilities that come with managing a team and a new drive to achieve this level.” RB; IMPD5; RP2*

*“I believe that the improvement in my ability to use critical thinking within a systemic management approach has contributed to an improvement in my analysis of the day-to-day work within my area. This is evident in the small wins achieved as part of the inter-modular work and the direct influence these small wins have had on the daily work activities in my area and the evidence of value creation that has been presented as a direct result of the achievement of the small wins.” MDP4, RP4*

The personal transformation however also had to illustrate a change in frame of reference. This could be illustrated in the following quotes:

*“I am convinced without uncertainty that the concepts and the knowledge gained from the IMPD4.1 has brought about a phenomenal change in the way I do things now – empowered to focus on value creation activities and clarity in project delivery.” AS; IMPD4; WR*

*“The activities in my PoWD have led me to understand that personal value system has an influence on value creation in decision-making which presuppose that my inability to exercise my responsibility to provide leadership based on professional judgment could lead to taking decisions based on personal feelings rather than the goals of Obuasi Mine. The lesson learnt under belief system is that personal value system can make a difference in terms of how I evaluate information on site investigations to arrive at decisions that are inherent with value creation.” AS; IMPD4; RP1*

Given the above, it could be inferred that the transformative learning experience facilitated the development of cognitive flexibility in those students who engaged the learning process. These relationships are depicted in Figure 53 on the next page.

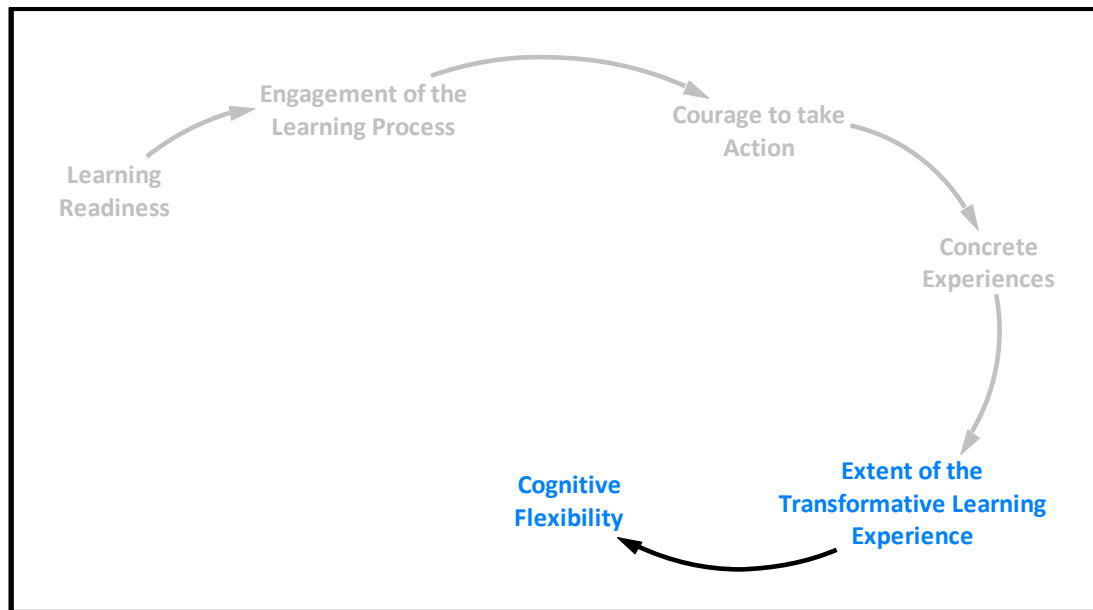


FIGURE 53. COURAGEOUS LEARNING THEORY – STEP 5

#### 5.5.6 COGNITIVE FLEXIBILITY INCREASES THE EFFECTIVENESS OF ACTION STRATEGIES

The concept analysis completed on the concept cognitive flexibility illustrated that cognitive flexibility includes the following:

- Being open to new ideas from various sources
- Being open to innovative thinking
- Encouraging creativity and experimentation
- The ability to identify relevant information
- Analytical and logical thinking skills

An increase in cognitive flexibility leads to an increased ability for sense-making and to conceptualise ideas. It enables a person to deal with complex situations and to comprehend strategic contexts which ultimately improve management effectiveness. The following quote indicates that the student is clearly open to new ideas from various sources (a property of intellectual flexibility) and is able to change his/her frame of reference.

*“I am now able to reflect on my previous behaviour and am able to break away from a really “defensive” and protective mode in which I had previously wanted to do everything myself or have direct control over, to understanding the limitations thereof and the value of teamwork and obtaining the confidence of others in order to get them to cooperate.”* KSW; MDp1; PP1



This could be interpreted as an increase in cognitive flexibility. Evidence discovered in this study that confirms the change in action strategies as a result of an increase in cognitive flexibility is expressed in the following two quotes:

*“I have come once more to realize that the job of the manager in the workplace is to get things done through employees. To do this I should be able to motivate employees and help them shift from an individual mindset to thinking and operating as part of a high functioning team. My challenge will be managing individual’s commitment to the team, overcoming ego behaviours, lack of teamwork skills and process, and creating an inclusive and participatory work environment.”* CF; IMDP4; RP2

*“Rework activities can be eliminated if the root cause of the rework can be found and corrected and mapping out efficient workflow process would affirm the organizations strategy to continuously improve the performance of current assets through cost management and increased departmental efficiency. Therefore, regular communication, workplace information sharing and consultations are seen as fundamental importance to create more buy-in, identify better solutions, and avoid potential pitfalls in project service delivery and must be taken serious to impact on the fortunes of Obuasi Mine.”* IMDP4, PP

The first quote illustrates how the student shifted his frame of reference from an individual mind set to a collective mind set in order to create a participatory and inclusive work environment. This could lead to the development of more effective action strategies that draw on the collective knowledge of the group, rather than relying on one person. This is similar to Mezirow’s (1997) transformative learning theory that refers to effective action strategies as ‘beliefs and opinions that are more true or justified to guide action’.

The second quote indicates how analytical and logical thinking skills (a property of cognitive flexibility) are used to identify pitfalls and develop better action strategies to create value for the organisation. It could therefore be inferred that an increase in cognitive flexibility could lead to the development of more effective action strategies. This relationship is depicted in Figure 54 below.

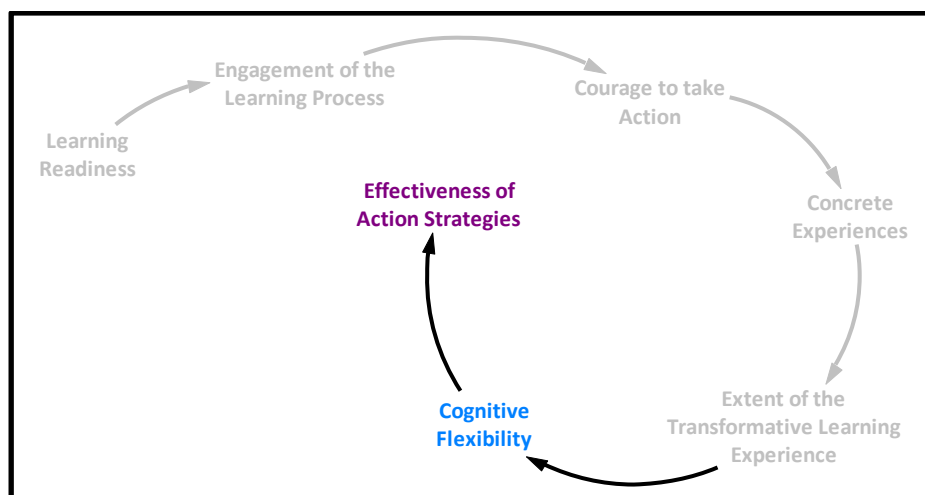


FIGURE 54. COURAGEOUS LEARNING THEORY – STEP 6

A student's ability to develop more effective action strategies in the workplace clearly is beneficial for the organisation in terms of its management capacity. In chapter one an effective manager was defined as one that can *develop and implement effective action strategies*, aimed at achieving organisational goals and objectives. Given the fact that students increased the effectiveness of their action strategies, it would therefore imply that they are becoming more effective managers. The purpose of the management development programme is to increase the management capacity of AGA and one could therefore infer that an increase in the effectiveness of action strategies, would increase the extent of the transformative learning experience that took place as a result of the programme. This relationship will be discussed in more detail in the next section.

In addition to increasing the effectiveness of action strategies, the increase in cognitive flexibility has a significant impact on the students' social skills. In this study it was determined that the increase in cognitive flexibility increases the students' social astuteness. This relationship will be explored in the next section.

#### 5.5.7 COGNITIVE FLEXIBILITY INCREASES SOCIAL ASTUTENESS

One of the properties of cognitive flexibility is the ability to be open to new ideas from various sources. This dynamic is illustrated in the quote below:

*"My communication with the team became very effective which led to the improvement in working with the team members. Now the team members are very free to contribute to team discussion which has led to increase in the team participation, and also leading to increase in getting information. This consequently has led to the reduction in time spent in doing team work. " AR; IMDP4; RP1*

The quote above indicates that the student's ability to be open to new ideas from other sources made him more receptive towards contributions from the team members. Being more receptive towards suggestions from other team members would in turn contribute towards team participation and therefore could assist the student in managing the team. This would imply that the student has social astuteness.

Social astuteness in the context of this study, was defined as the ability to understand people and their behaviour and through effective communication build, develop and maintain trust in relationships that enable the manager to create a cohesive workplace that is conducive towards learning and the achievement of goals. Substantial empirical evidence was found in this study that indicated that the students significantly increased their social skills. One such a quote is as follows:

*"From this learning process and the experience I have got from this help me to be more confidence with colleague when I am facing the problem. This learning improves significantly my leader relationship to the people around me. " IMDP3, RP1*

The increase in cognitive flexibility therefore increases the student's social astuteness thereby enabling the student to engage with key stakeholders to develop more effective action strategies. These relationships are depicted in Figure 55 below.

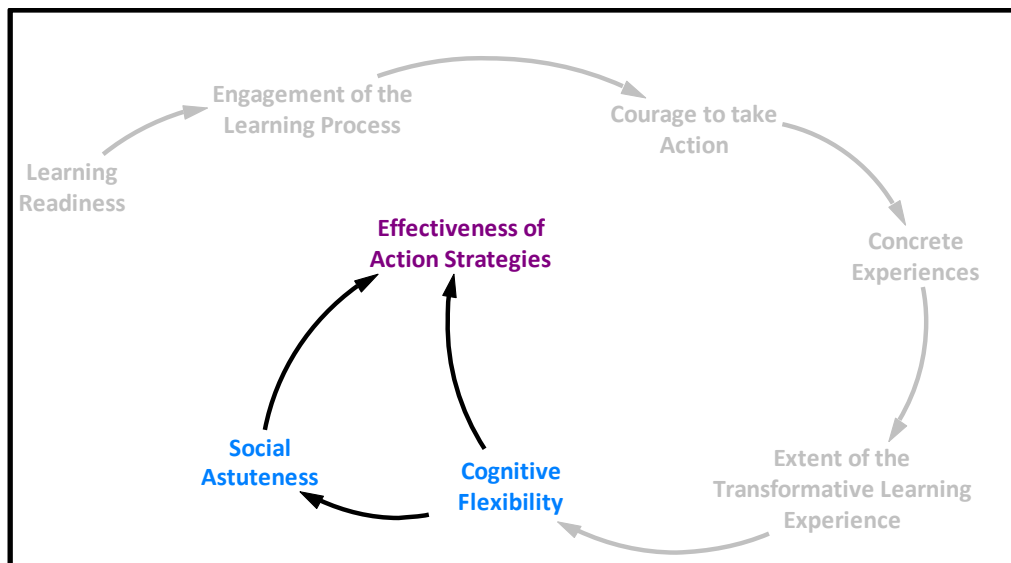


FIGURE 55. COURAGEOUS LEARNING THEORY – STEP 7

Being socially astute enables a student to develop and maintain social capital that could be harnessed in the pursuit of organisational goals and objectives. An example of this dynamic is illustrated below:

*“Recently a situation occurred, mentioned in CIL 5, where I could not solve a problem and I had no fall back position. Since then I established proper links with at least three technical colleagues that I feel free to contact with any problem; and since then I already did contact them with a problem and I had proper feedback from them. They in turn also contacted me to assist them with an issue or two. Another interesting aspect was that through my interaction with these people they were more honest about their own capabilities and I realized that not all of them knew exactly what was required from them (relating to the Business Planning), this created another avenue of possible value adding to explore later on.”* MDP4, RP

Using social astuteness to enhance learning and develop more effective action strategies is closely related to Argyris and Schön's (1996) Organisational II Learning Systems. In their learning theory, the activation of model II theories-in-use, combined with the use of good data and inclusive views, is aimed at jointly developing maps through a dialogical process (Argyris, 1995). These maps are more inclusive of participants' views and could result in more effective action strategies. Using social astuteness to increase the effectiveness of action strategies is in addition illustrated in the following student quotation:

*“Constructive communication development to support in value added activities has significantly assist in getting stakeholders collaboration and more importantly to promote commitment towards the organization objectives.”* MDP4, RP

Social astuteness however does not only assist a student in being a more effective manager. On this management development programme it was found that students who are more socially astute also had the ability to manage their own learning better, which in turn increases the student's ability to engage the learning process. These relationships will be explained in the next section.

#### 5.5.8 *SOCIAL ASTUTENESS INCREASES THE ABILITY TO MANAGE OWN LEARNING AND ENGAGE THE LEARNING PROCESS*

Engaging in any formal education programme whilst working full time places additional stress on the student. The conceptual framework that was presented in chapter one clearly illustrated all the factors that affect the learning process. The ability to manage your own learning was identified as a key requirement for the success of the management development programme. A student's ability to develop and harness support from various networks is a key aspect that influences his/her ability to fully engage the learning process. Students who have social astuteness would be able to engage these support networks more effectively in order to obtain the required learning support that will enable engagement of the learning process.

A relevant student quotation is as follows:

*"While I emphasise the difficulties of this process so far and the challenges that the IMDP programme present, I cannot understate the importance and value that this program offers. At only half way through I can already see a difference in myself and in the ways in which I interact with people on both a personal and professional level. My family have even commented on the fact that I have changed. I have come back to work more motivated and focused. I experience things with an open mind and seem to find myself relating everything back to one of the IMDP learning's. Often I find myself either reflecting back on or projecting forward possibly perceptions and challenges that occur as a result of my own Ladder of Inference, sources of motivation or critical thinking."* RB; IMDP5; RP2

In the above quote, it is clear that the student acknowledges the challenge presented by the programme, but also indicates how he has changed in his interaction with stakeholders. This would increase his ability to harness support from his various networks whilst engaging the learning process.

These relationships are depicted in Figure 56 on the next page.

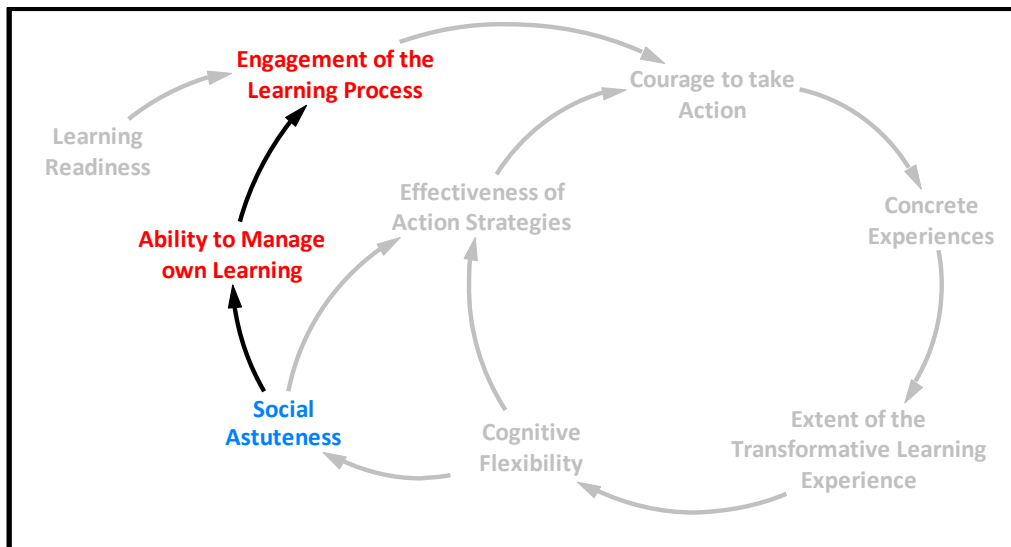


FIGURE 56. COURAGEOUS LEARNING THEORY – STEP 8

An abbreviated explanation of the final theory, with reference to the causal model will be provided in the next section.

## 5.6 ABBREVIATED ANSWER TO THE RESEARCH QUESTION

This section will provide a condensed description of the findings of this study with a particular focus on illustrating how the theory developed answers the research question. The research question for this study was:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

Learning readiness as defined in the context of this study contributed towards the student's ability and commitment to engage the learning process. Engagement of the learning process provided the students with the cognitive structures and courage to take experimental actions in their organisations. These concrete experiences provided learning events, which in the process of reflective practices, facilitated a transformative learning experience that lead to the development of cognitive flexibility. An increase in cognitive flexibility allowed the students to assess and act more appropriately in social situations, implying an increase in social astuteness. An increase in cognitive flexibility and social astuteness combined, increases the effectiveness of action strategies in that the interventions include multiple perspectives and a high level of cognitive analysis. This increase in the effectiveness of action strategies by definition increases the management effectiveness of the students in their organisation.

The increase in social astuteness in addition enables the student to communicate effectively with relevant stakeholders about the requirements of their academic programme, thus enabling them to harness support

from relevant support networks that in turn enable the student to manage his/her learning more effectively. An increase in the ability to manage his/her own learning also increases the student's level of engagement of the learning process.

The complete causal model developed to illustrate the answer to the research question is depicted in Figure 57 below for ease of reference.

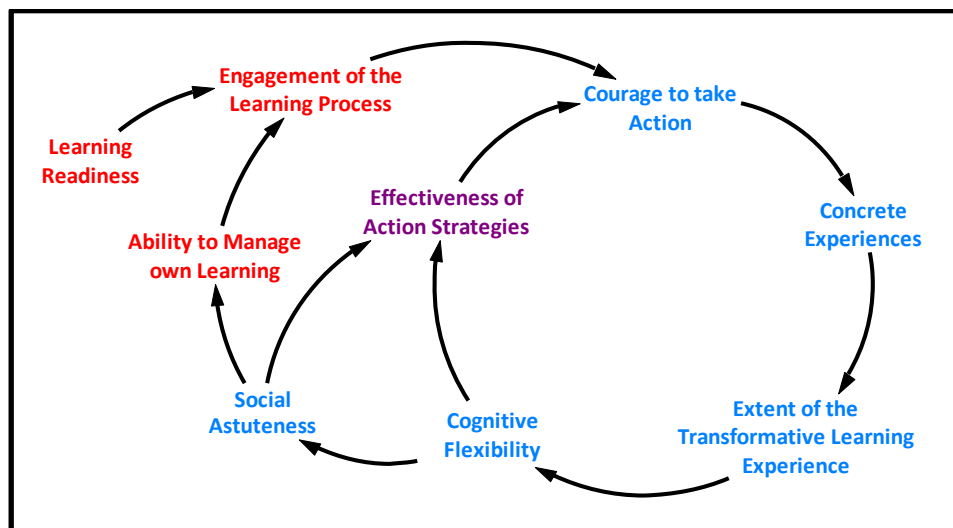


FIGURE 57. COURAGEOUS LEARNING THEORY

In Figure 57 above, the variables depicted in red text are the key concepts contained in the research question. The variables depicted in purple text are the concepts contained in the research problem and the variables in blue text are the variables that were identified as a result of the grounded theory process of this study.

In the next section, I will evaluate the grounded theory that I developed to explain the phenomenon that I observed.

## 5.7 EVALUATING THE GROUNDED THEORY

Glaser and Strauss (1967, p. 237) indicated that it is useful to assess the validity of a grounded theory based on fitness, understanding, generality and control. In the next sections, I will assess the validity of my theory against these criteria.

### 5.7.1 *FIT*

Fitness is assessed by assessing how well the theory fits the substantive area in which it will be used. Fitness implies that my theory should correspond closely to the real-world data. Glaser and Strauss (1967, p. 238) indicated that could easily develop a theory that embodies his/her own personal ideals or values. This could have a negative impact on the theory's fit. The data in my study was compiled from research reports and reflective papers compiled by the research participants. The substantive coding process therefore utilised data

generated directly by research participants who were directly involved in the research context. The coding and conceptualisation process could however still have influenced the formulation of the categories in such a manner that it did not fit the context. The theoretical coding process therefore was also aimed at testing how well the final categories resonated with the research participants. At a category level, I therefore have a high level of confidence that the theory fits the substantive area.

Another aspect that contributed towards the fit of my theory is my extensive engagement in the research context. I have been involved with the AGA management development programmes since 2008. The duration and level of involvement allowed me to develop insight into the research context, as well as a common language that is shared with the research participants. In the next section I will assess the understandability of my theory.

### 5.7.2 *UNDERSTANDABILITY*

Glaser and Strauss (1967, p. 239) stated that a theory should be understandable to the people who work in the substantive area in which the study took place. This is an important dimension of a grounded theory in that the people working in the area may want to apply the theory themselves. The purpose of my study was to understand what the mechanism is that causes some students to experience a transformational learning experience and develop effective management practices, whereas other students do not seem to derive the same benefit. The theory that I developed clearly identifies the variables as well as how they interact to create this phenomenon. The theory indicates that all the variables should be at an acceptable level for a student to have a transformational learning experience. I therefore infer that my theory is understandable. In addition to my personal interpretation of the theory, I tested the final theory with three key stakeholders in the research context. This test revealed that the theory was understandable to other parties and sufficiently explained the studied phenomenon. A limitation in terms of the understandability of my theory could however be ascribed to the fact that I did not test how well my final theory resonated with a sufficient sample size of the initial research participants. The understandability of the causal explanation of the mechanism could therefore be improved by further testing how well it resonates with the research participants. In the next section, I will test my theory for its generality.

### 5.7.3 *GENERALITY*

In developing the categories, it is a fine balancing act between developing the categories at a suitable conceptual level that will allow generality, but not to make it too abstract that it loses its fit with the research context. An additional aspect that impacts on the generality of a theory is to ensure that the theory is general enough to be applicable to 'the whole picture' (Glaser & Strauss, 1967, p. 242). This would ensure that general changes in the day-to-day situation do not make the theory redundant.

This theory was developed in the context of a very particular management development programme partnered between an academic institution and a multinational gold-mining company. The course design of

this programme is very specifically based on adult learning within an experiential learning framework. These factors will have to be taken into consideration regarding the generality of the theory. A comparison between my theory and the learning theories used to develop my theory (see section 5.4.4) however revealed that the conceptual level of my theory corresponds closely to the conceptual level of key concepts identified in other learning theories. I therefore believe that my theory is generalizable to other settings, but within an adult experiential learning based context. In the next section, I will assess the controllability of my theory.

#### 5.7.4 *CONTROL*

Control refers to a person's ability to control everyday situations when applying the theory. This control implies that a person must be able to understand the unfolding situation in order to plan and predict further actions (Glaser & Strauss, 1967, p. 245). The causal model that depicts my theory allows a person to focus on the key elements that should be in place to facilitate a transformational learning experience in an experiential learning programme. Awareness of these variables could assist a person in focusing the attention on the key, controllable elements that affect a student's experiential learning process.

The theory allows for the preparation of students before commencement of the learning process, in that it identifies the key elements that should be in place prior to the learning process. In addition, it enables control over the experiential learning process in that it identified a key element that may inhibit action. The variables that were identified in this theory are clearly defined in terms of their antecedents, attributes and consequences. It is therefore possible for a person to identify those elements of each variable that are most applicable to his/her situation and that could allow optimal control.

#### 5.7.5 *CONCLUDING REMARKS ON THE THEORY'S VALUE*

Given the above assessment of my grounded theory against Glaser and Strauss' (1967) criteria, I believe that the grounded theory developed in my study is useful, despite the identified improvements that could be made. From a critical realist perspective, I can therefore conclude that my theory has practical adequacy (Danermark et al., 2002) in that it accurately reflects the causal mechanism in the real world that generated the phenomenon that I observed. In the next section, I will provide a conclusion to this chapter.

### 5.8 CONCLUSION

In this chapter, I illustrated how I selected three learning theories as 'scientific models' to be used in Beer's (1966) 'process of scientific analogizing'. The application of Beer's model enabled the comparison of the identified key variables of this study, with the three selected learning theories. This process highlighted the similarities and differences between the key concepts in the theories and those identified in this study and enabled me to select a seed theory. The seed theory was used as a basis from which to develop my own theory.



The theory developed in this study illustrated how learning readiness and engagement of the learning process contributed towards the development of more effective managers for AGA who could develop effective action strategies. Kolb's (1984) theory could however not explain all the dynamics identified in this study.

The new conceptual model that I developed as a result of Beer's (1966) 'process of scientific analogizing' enabled me to explore the relationships between the key variables that I identified in this study and thereby develop a causal model that suitably explains the social phenomenon that I observed. I acknowledge that this causal model is just one interpretation of the real world and that there may be other (equally suitable) interpretations of the phenomenon that I studied. The evaluation of my grounded theory based on its fit, understandability, generality and control revealed that despite the improvements that could be made, the theory has practical value and that it could be applied by practitioners to improve the transformational learning experiences of students engaging in an experiential research learning programme.

In the next chapter, I will formulate and present the theoretical contribution of my study. In addition, the outcomes of this study will be assessed through concluding statements about the research methodology, question and problem. The chapter will conclude with implications for theory and practice, as well as identification for further study.

## 6 CONCLUSIONS AND IMPLICATIONS

In the previous chapter I explained how I developed my theory in a two-staged process. The first stage was aimed at identifying a learning theory that I could use as a seed theory from which to develop my own theory. In this stage of the theory building process I used Beer's (1966) 'process of scientific analogizing' to compare three selected learning theories with my managerial situation (the phenomenon that I studied). This process enabled me to identify Kolb's (1984) ELT as the seed theory from which to develop my own theory. An analysis of the similarities and gaps between Kolb's theory and my key concepts enabled me to develop my own theory.

In this chapter I will provide an overview of my thesis and a critique of the contribution that my theory makes to the relevant literature as discussed in chapter four. I will do this by firstly providing a brief overview of each chapter of my thesis in order to summarise the essence of each chapter that will provide the context for the discussion in this chapter. After the overview of chapters, I will present the conclusions that I made about the research question and the findings of my study. The findings will be discussed in terms of agreements, disagreements as well as theoretical or practical contributions made, specifically relating to ELT. The contributions made by this study will be presented in this regard.

### 6.1 INTRODUCTION

Chapter one of this thesis laid the foundation for the remainder of the document. It provides the background of a management development initiative partnered between AGA and the UCT GSB that is the focus of this study. A central part of chapter one was to present my worldview that informed this study. I believe that there is a difference between 'what is' and our explanations of 'what is'. In my view, there is therefore a difference between reality and our interpretations of reality. In order to make sense of reality, we abstract insights from the world and develop our explanations of what exists in the social world. My worldview resonates strongly with a critical realist ontology and a constructivist epistemology. It is within these philosophical frameworks that I conducted this study.

My study commenced with the development of a conceptual framework of the phenomena that was the focus of my study. The conceptual framework was the result of a pilot study that I conducted in my workplace in order to determine what the key factors are that affect students' learning process. The pilot study consisted of a series of action research cycles. This conceptual framework assisted in extrapolating the problem context, and to develop the key research question that was focused on addressing the research problem. The key research question that was formulated as a result of the conceptual framework is:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

This study is justified in that it could equip me with knowledge to improve the facilitation of the learning process. In addition, this study provides AGA with more tangible knowledge about the conceptual change that occurred in their managers as a result of the management development initiative. It also identifies the learning theory that explains how learning readiness and engagement of the learning process increases the effectiveness of management practice.

The scope of this study is confined to AGA and all research participants were managers in AGA at the time when data was gathered. This study excluded the design and facilitation of the programme and rather focused on the learning process and factors that impact the learning process. During the design of my study, I had to make three critical assumptions. The first assumption was that all AGA business units have a similar (positive) attitude towards the management development programme and that students will therefore have support from the organisation to engage their learning process. The second assumption that I made was that the managers selected to participate in these programmes had the right motivation to complete the programme at the time of nomination and are therefore willing and able to arrange their personal and work lives to accommodate their studies. The third and last assumption that I made was that the learning process is sufficiently developed and facilitated to achieve the purpose of the programme.

The nature of the research problem lends itself towards a qualitative study. I further determined that grounded theory would be a suitable methodology that is compatible with both my ontological and epistemological views. Grounded theory is also a compatible methodology to develop a theory of the causal mechanism in the real world that created the phenomenon that I studied.

In chapter two of this thesis, I provided the building blocks of the research framework for my study in terms of the ontology, epistemology, methodology, methods and sources. I adopted Charmaz's (2006) interpretation of grounded theory due to her critical realist interpretation of grounded theory. The explanation of the grounded theory process in chapter two focuses on the data collection, data analysis and theory building processes in grounded theory. I also explained my interpretation of the application of grounded theory techniques which includes memoing, constant comparison, theoretical sampling and the concept of saturation. In considering data collection methods, I emphasised how I applied triangulation of sources as a method to address validity.

In chapter two I also indicated that the theory building process for this study was only completed after the literature review was conducted. The purpose of deferring the theory building process until after the literature review is to enable the development of theoretical concepts from the key concepts identified as a result of the grounded theory process. This also allows for the placement of the identified variables within a specific body of knowledge. Chapter two concludes by highlighting key ethical issues that were taken into consideration during this study. The main potential ethical issue that I had to deal with was confidentiality of research participants' written assignments.

In chapter three, the empirical research results of the grounded theory process were presented with reference to each step in the grounded theory process. Chapter three emphasised process rigour that is aimed at dealing with issues of validity. The grounded theory process identifies five key variables that explain how learning readiness and engagement of the learning process lead to the development of effective action strategies that increase management effectiveness. Chapter three concluded with the identification and explanation of these categories that are:

- Courage to Take Action
- Concrete Experiences
- Cognitive Flexibility
- Social Astuteness
- Extent of the transformative learning experience

Following chapter three, chapter four explains the approach towards literature that I adopted in this study. This approach is from a grounded theory perspective and the literature review is therefore presented after the research results were presented. A prelude to the formal literature review was an overview of adult learning theories. This overview was aimed at identifying the learning theory that best resonates with my study and was adopted as the parent discipline for my study. Experiential learning was identified as the parent discipline for my study. The next level of my literature review focused on key elements in experiential learning that are most relevant to my study. These elements were learning readiness, ability to manage own learning and engagement of the learning process. These concepts were reviewed in the context of experiential learning.

The last aspect of the literature review was to explore the specific key variables that I identified as a result of the grounded theory process. These concepts were explored in relation to experiential learning and this enabled me to identify the theoretical contribution made by my study.

At completion of the literature review, the theory building process was presented in chapter five. Beer's (1966) 'process of scientific analogizing' was used during stage one of the theory building process to identify a seed theory that I used to develop my own theory from. In applying Beer's process, three adult learning theories are identified and used as scientific models in turn. The application of Beer's model enabled the comparison of the identified key variables of this study, with the three selected learning theories. This process highlighted the similarities and differences between the key concepts in the theories and those identified in this study. The outcomes of this process highlighted that the learning theory that best describes the phenomena in this study is Kolb's experiential learning theory. In stage two of the theory building process I analysed the similarity and differences between Kolb's theory that I used to develop a conceptual model that explains the underlying causal mechanism that created the phenomenon that I studied.

The theory that I developed in my study illustrates how learning readiness and engagement of the learning process contribute towards the development of more effective managers for AGA who can develop effective action strategies. My answer to the research question can therefore be summarised as follows.

The research question formulated in conjunction with the conceptual framework is:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

The answer to the research question is as follows:

The theory illustrates that learning readiness as defined in the context of this study contributes towards the student's ability and commitment to engage the learning process. Engagement of the learning process provides the students with the cognitive structures and courage to take experimental actions in their organisations. These concrete experiences provide learning events, which in the process of reflective practices, lead to the development of cognitive flexibility. An increase in cognitive flexibility allows the students to assess and act more appropriately in social situations, implying an increase in social astuteness. An increase in cognitive flexibility and social astuteness combined, increases the effectiveness of action strategies in that the interventions include multiple perspectives and a high level of cognitive analysis. This increase in the effectiveness of action strategies by definition increases the management effectiveness of the students in their organisation.

This would therefore imply that the effectiveness of action strategies drives the extent of the transformative learning experience and thereby develops more effective managers for AGA within the context of their organisation.

The increase in social astuteness in addition enables the student to communicate effectively with relevant stakeholders about the requirements of their academic programme, thus enabling them to harness support from relevant support networks that in turn enable the student to manage his/her learning more effectively. An increase in the ability to manage his/her own learning also increases the student's level of engagement of the learning process.

Kolb's (1984) theory could not explain all the dynamics identified in this study. The key elements that were discovered in this study that cannot be explained with existing adult learning theories will be formulated and identified as the theoretical contribution of this study in the sections to follow.

## 6.2 CONCLUSIONS ABOUT THE RESEARCH QUESTION AND THEORETICAL CONTRIBUTIONS

In this section, the findings of the research question will be summarised in the context of previous research that was discussed in chapter four. This discussion will highlight agreements, disagreements as well as theoretical and practical contributions of the findings of this study.

### 6.2.1 *RESEARCH CONTEXT*

This study was conducted within the context of a particular management development programme that was partnered between a tertiary institution and a large corporate organisation. The results of this study therefore have to be interpreted within this context. This context is significantly different from the context within which Kolb originally developed his experiential learning theory. Kolb's (1984) theory was originally developed from a predominantly Western perspective in that the research participants were exclusively western. One of the criticisms of Kolb's theory is related to this aspect (Pickles, n.d.).

One of the key differences between Kolb's research context and mine is therefore in the diversity of cultures of the research participants. The research participants in my study were African and South-American and therefore represent an emerging market (developing country) perspective of action learning in organisations, whereas Kolb's original research mainly represents a Western perspective.

In this regard, my study therefore makes a contribution towards the transferability of Kolb's theory across cultural perspectives.

### 6.2.2 *LOCATING MY THEORY IN THE LITERATURE*

Given the context of this study, this theory is located within the parent discipline identified in the previous chapter – experiential learning. The specific learning approach, given the fact that this learning phenomena was best described by Kolb's (1984) ELT, therefore resides within the constructivist learning approaches and more specifically within ELT in the context of management development. The location of this study within the literature is illustrated in Figure 58 on the next page.

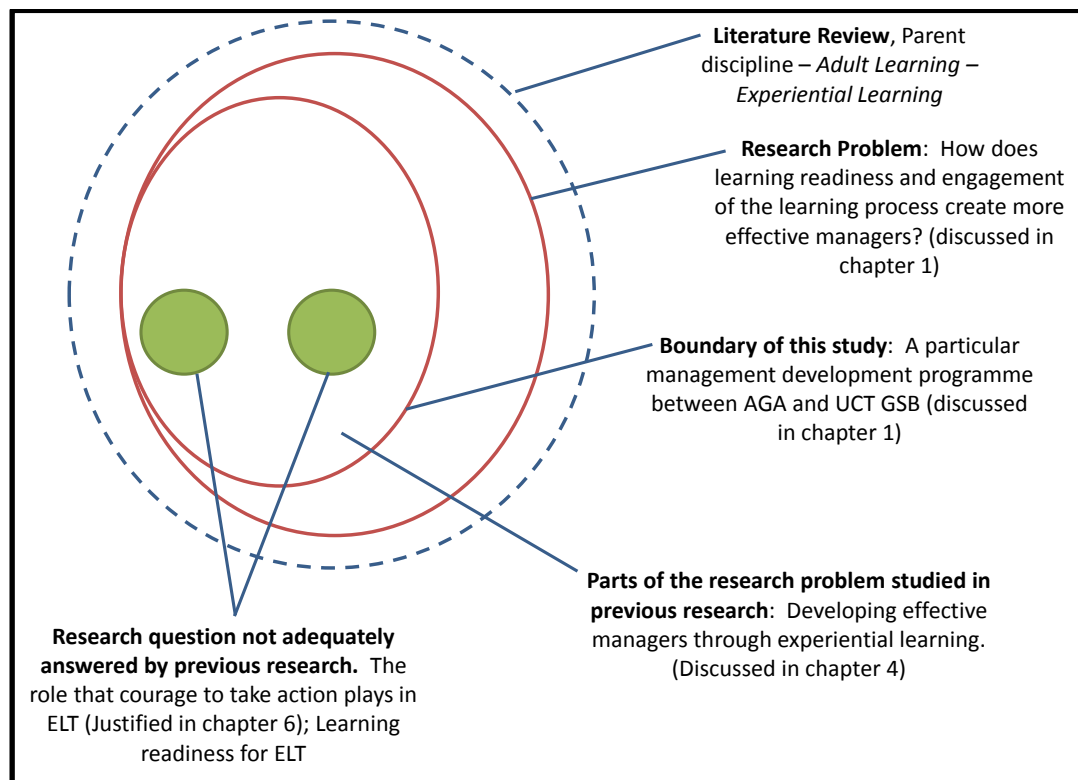


FIGURE 58. LOCATING THIS STUDY IN THE RELEVANT BODY OF KNOWLEDGE

In Figure 58 above, I highlight the fact that my study falls within the adult learning body of knowledge and more particularly in Experiential Learning Theories. The scope of my study is confined to a particular management development programme that is facilitated between the UCT GSB and AGA. The research problem was aimed at identifying how learning ready students, who are capable of managing their own learning, are turned into more effective managers for AGA through this management development programme.

I identified two areas that the current literature does not fully cover. The first concept is the courage that is required for a student to take experimental actions within his/her organisation as part of the learning process. The other area that was not fully covered is the specific learning readiness criteria for a student who engages on an experiential learning programme. In the next section, I will explore the theoretical contribution of my study in more detail.

### 6.2.3 KEY ELEMENTS IN THE RESEARCH ANSWER

The key research question for this study was:

***How do engaged, learning ready students, who can manage their own learning process, undergo transformational learning experiences that increase management effectiveness?***

The answer developed in this study was in the form of a model that depicts the mechanism in the real that created the studied phenomenon. The causal model is depicted in Figure 59 below.

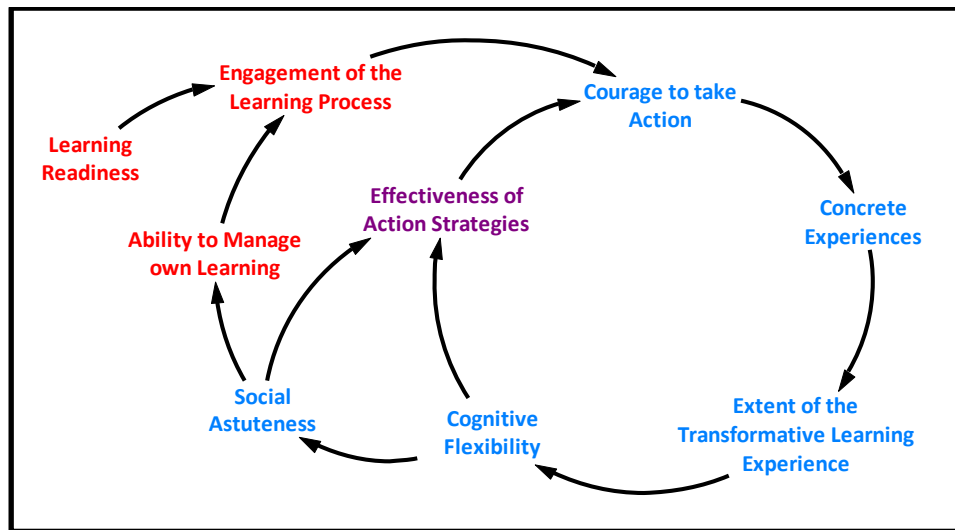


FIGURE 59. RESEARCH ANSWER

The review of my research answer in relation to relevant theory will focus on each variable and relationship in the above causal model. The first relationship that is of significance is that learning readiness increases a student's ability to engage the learning process. This relationship is depicted in Figure 60 below.

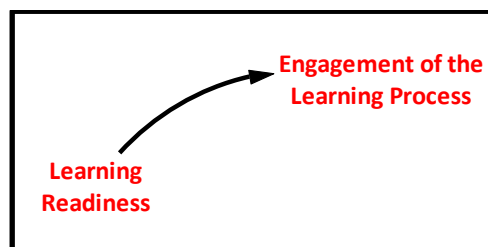


FIGURE 60. RESEARCH ANSWER – STEP 1

The relationship between learning readiness and engagement of the learning process is not new or unique concerning the existing body of knowledge. The literature makes a distinction between learning readiness in pedagogy and andragogy (Knowles, 1980). The results of my study agree with this distinction in that the attributes identified for learning readiness in experiential learning are directly associated with adult learners only and are not relevant to children. My study in addition confirms the concept of goal-directed action in the knowledge creation process in that it was evident that students engage a learning process aimed at developing knowledge that could assist them in dealing with real-world problems (Von Glasersfeld, 1995).

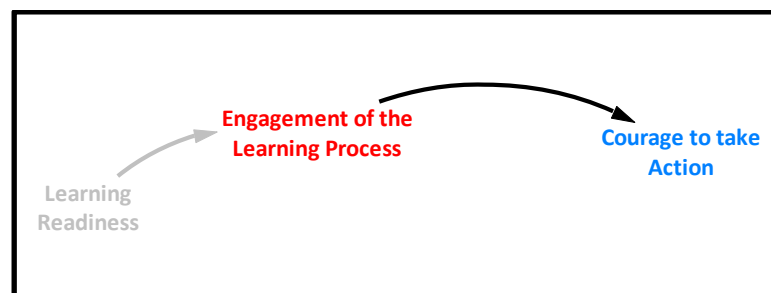
Kolb's (1984) theory placed the focus on factors that affect the learning process through his concept of the conduciveness of the learning space to learning. It however does not sufficiently define the attributes of learning readiness for experiential learning. Maddox et al. (2000) also indicated that insufficient attention was



given to the topic of learning readiness for experiential learning. My study agrees with the literature in that there is a psychological and physical dimension to learning readiness, it however further contributes to the literature by defining the antecedents, attributes and consequences of learning readiness specifically for a student engaging an experiential learning process on a management development programme. I presented these findings in paragraph 4.3.1.

My study further confirmed the importance of learning readiness for engagement of the learning process. Empirical data gathered during my data gathering process clearly highlighted the fact that engagement of the learning process extends beyond the classroom as indicated by Kuh et al. (2007). It further agrees with the three dimensions of engagement as identified by Trowler (2010), cognitive, behavioural and emotional engagement.

A new contribution that my study made is that for this specific management development programme, engagement of the learning process acts as a catalyst for the development of courage. Due to the nature of this programme within AGA, the students who engage on this programme have the organisation's support to implement experimental actions as part of their management development programme. This assisted the students in developing courage to take action, which is a key element of the experiential learning process (Kolb, 1984). The next relationship that was identified in my study is therefore between engagement of the learning process and courage to take action. This relationship is depicted in Figure 61 below.



**FIGURE 61. RESEARCH ANSWER – STEP 2**

Limited consideration is currently given to the role that courage plays in experiential learning. Bergh (2009, p. 9) hints at courage when he indicated that knowledge created by entrepreneurs is built “on networking skills, the ability to analyse market conditions, and the courage to implement one’s ideas.” His study was however focused on how entrepreneurs learn and was not specifically focused on experiential learning. Yeganeh and Kolb (2009, p. 17) also briefly mention the role of courage in taking action by stating that “[a]cting can be enhanced by courageous initiative-taking....”

There is however not a study that specifically assesses the role of courage in experiential learning and my study therefore contributes by highlighting a vital element that is required for a successful experiential

learning experience. Without action, there will be no concrete experiences that facilitate the learning process. This leads to the next relationship that I identified in my study that is depicted in Figure 62.

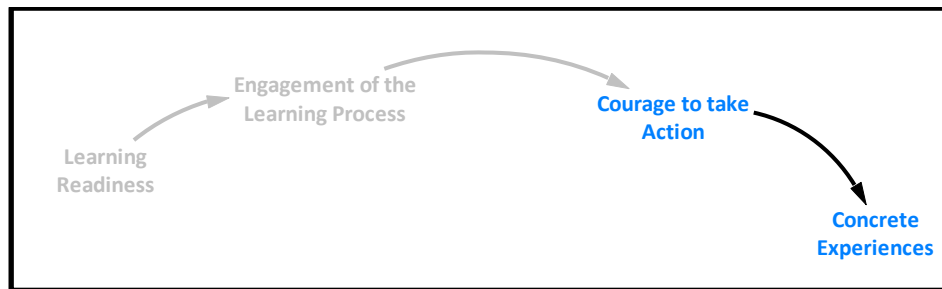


FIGURE 62. RESEARCH ANSWER – STEP 3

The literature on experiential learning covers the role of concrete experiences in the learning process extensively. There are limited contributions that my study can make in this regard. The only additional contribution is the role that courage plays as an antecedent to taking action. My study supports Kolb's view when he stated that learning is "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (Kolb, 1984, p. 41).

My study further found that the result of engagement of the learning process and concrete experiences in the context of my study, led to a transformative learning experience. This relationship is depicted in Figure 63 below.

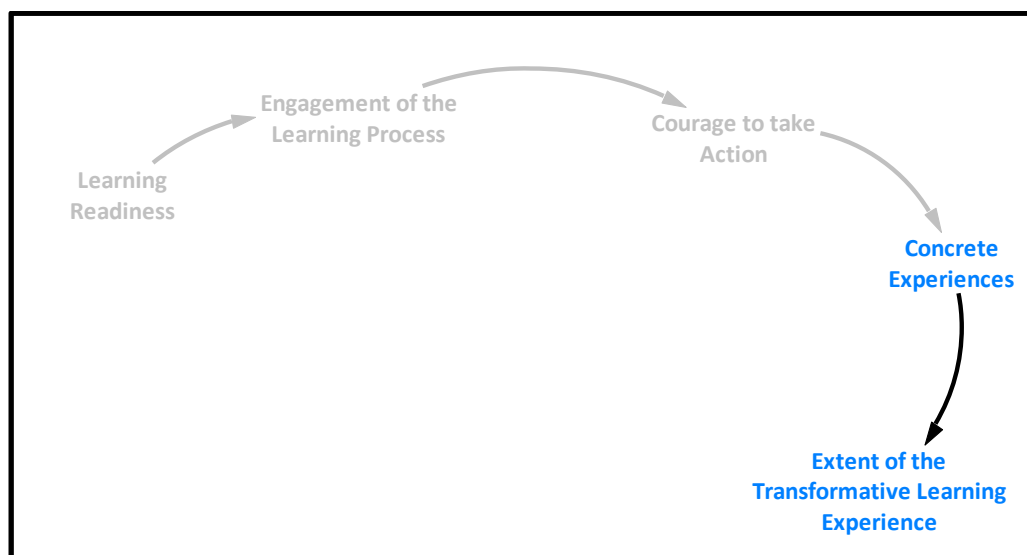


FIGURE 63. RESEARCH ANSWER – STEP 4

Literature indicates that non-routine experiences will lead to more learning, whereas routine experiences could lead to re-enforcement of prior or existing knowledge (Billett, 2000). In the context of my study, the

action research learning assignments, through the introduction of new theories and tools, mostly positions students to implement non-routine activities. The structured learning process therefore facilitates more learning in that students are exposed to new experiences. These new experiences not just challenges the students cognitively, but also socially. A key component of my study was to define the conceptual change that occurred in the management cadre of AGA as a result of their engagement of the programme. The results of this assessment clearly illustrated that the most significant outcome of the engagement of the learning process is evidence of personal development and value addition. It was found that students who fully engage their learning experience had significant personal growth and created more value for their organisations.

Through a process of self-examination and learning from mistakes, students developed the following key abilities (amongst many others):

- Ability to articulate a critical position with a strong conviction and decisive and personal ownership
- Improving personal characteristics to match the organisation's ethos
- Being equipped to deal with divergent opinions in order to diffuse potential social discord
- Providing insight into personal behavioural patterns that enable increasing the ability to adapt to change
- Understanding how your behaviour affects people

The above abilities seem appropriate in terms of the transformative learning process described by Mezirow (2009). He defined transformative learning as "the process by which we transform problematic frames of reference (mindsets, habits of mind, meaning perspectives) – sets of assumption and expectation – to make them more inclusive, discriminating, open, reflective and emotionally able to change. Such frames are better because they are more likely to generate beliefs and opinions that will prove more true or justified to guide action." (Mezirow, 2009, p. 92).

Evidence in this study suggests that students developed the ability to adjust their frame of reference through which they create meaning about the world around them. My study therefore agrees with the literature on transformative learning regarding the transformation process. My study contributes by establishing a relationship between experiential learning and transformative learning. The study however did not extend beyond the individual to make a contribution to transformative learning in groups.

The next relationship that forms part of my answer is that the transformative learning experience leads to the development of cognitive flexibility. This relationship is depicted in Figure 64 on the next page.

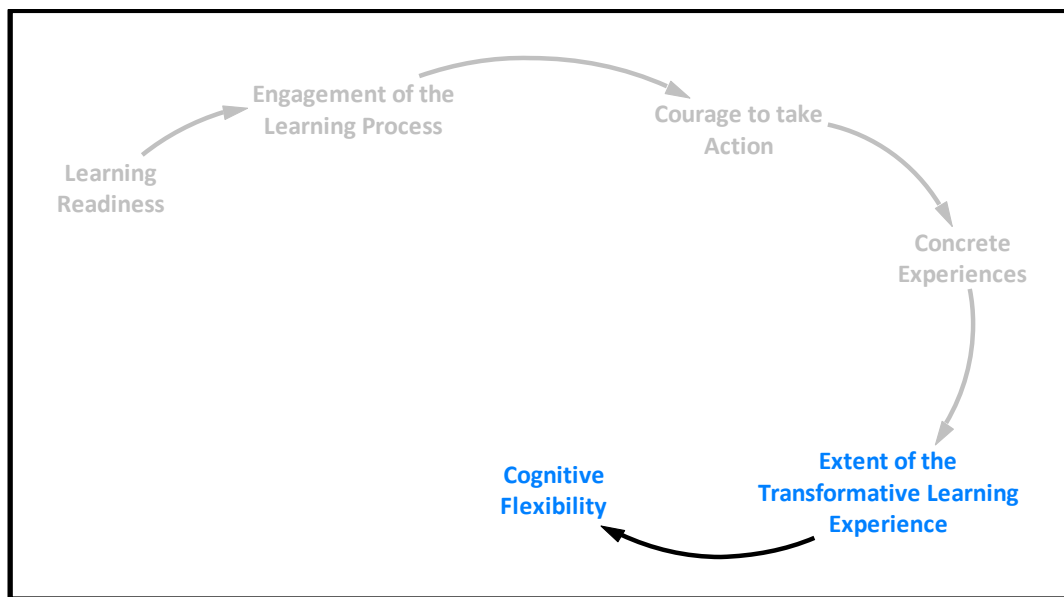


FIGURE 64. RESEARCH ANSWER – STEP 5

The results of my study confirm the findings of Chieu (2007) in which the principles of learning in order to develop cognitive flexibility were defined. According to Chieu, there are two principal conditions of learning in order to develop cognitive flexibility: “multiple modes of learning... And multiple perspectives on learning” (p. 34). The design of this management development programme draws on multiple modes of learning and forces students to view issues/problems from multiple perspectives. There is a continuous focus on viewing issues from different angles. This study therefore agrees with the nature of the programme design that will facilitate the development of cognitive flexibility.

In my study, I found that a direct consequence of an increase in cognitive flexibility is an increase in the effectiveness of action strategies. This relationship is depicted in Figure 65 below.

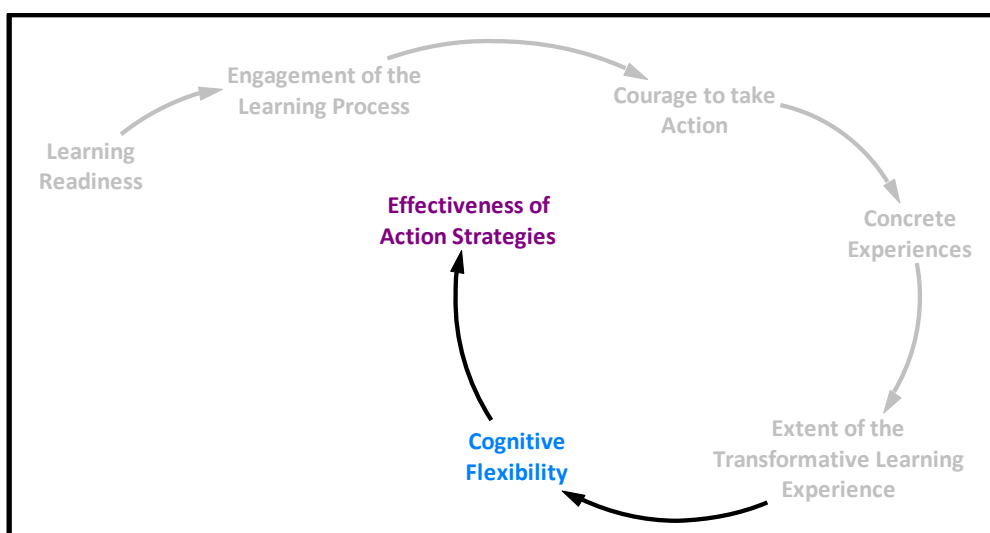


FIGURE 65. RESEARCH ANSWER – STEP 6

In chapter one of this thesis, I defined an effective manager as one that can implement effective action strategies. This relationship does not make a significant contribution to the literature, seeing that the variable (effectiveness of action strategies) was not a key variable that emerged in this study, but it was the target condition that determines if the management development programme is successful. I will therefore not consider this variable in relation to the literature. Another consequence of an increase in cognitive flexibility is however an increase in social astuteness. This relationship is depicted in Figure 66 below.

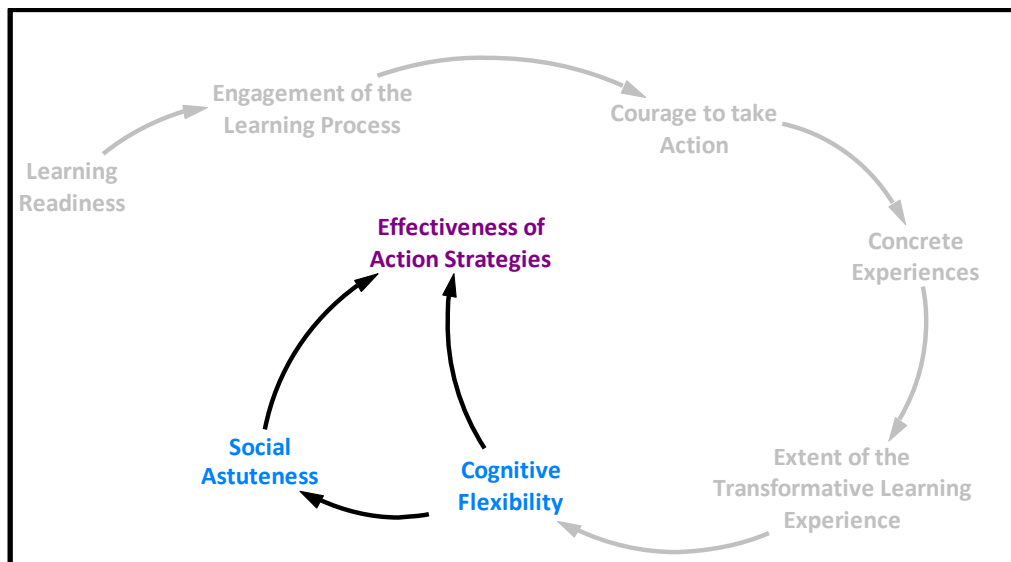


FIGURE 66. RESEARCH ANSWER – STEP 7

The results of this study further reinforce the role of social astuteness in team learning. It agrees with Kolb's statement that for a team to learn from collective experience, it is required that a 'conversational space' be created in order for the team members to reflect on their collective experiences (Armstrong & Fukami, 2008).

A contribution that this study however makes is that it defined the role of social astuteness in the context of managing one's own learning. This relationships is depicted in Figure 67 on the next page.

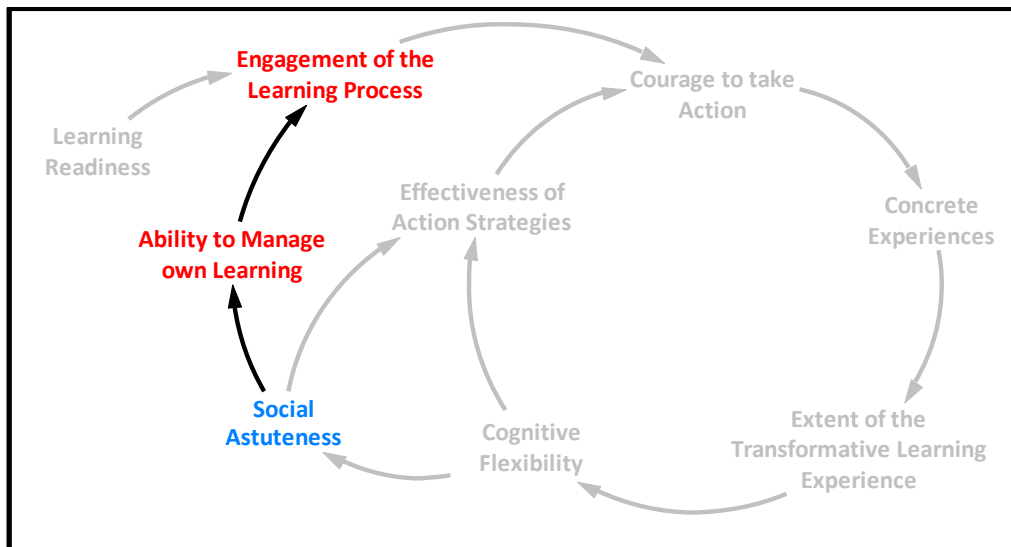


FIGURE 67. RESEARCH ANSWER – STEP 8

I agree with the authors that the ability to manage your own learning is central to the success of an experiential learning process. My study however found that students who have a high level of social astuteness are better able to engage key stakeholders and therefore manage their own learning better. McClusky's Theory of Margin resonates strongly with the findings in my study, in that I observed that students who are able to balance the ratio between load and power were better able to manage their own learning (Merriam et al., 2007, p. 97).

My study in addition provides empirical evidence of the internal and external factors that impact on power and load. My study makes a further contribution about the ability to manage one's own learning by highlighting the role that support networks play in an experiential learning process. In my study, I found that a student's ability to develop and harness support from various networks is a key aspect that influences his/her ability to manage load and power. In this regard, the role of support networks is multi-dimensional and these are shaped depending on the student's support needs. A lack of appropriate support often results in overload and the resultant disengagement of the learning process.

In the next section, I will summarise the theoretical contribution of my study, by summarising the specific contributions listed above.

#### 6.2.4 SUMMARY OF THEORETICAL IMPLICATIONS

My complete research answer is depicted in Figure 68 on the next page. In this diagram, I graphically depict the contribution that my study makes to relevant literature. This will be discussed in a summary below.

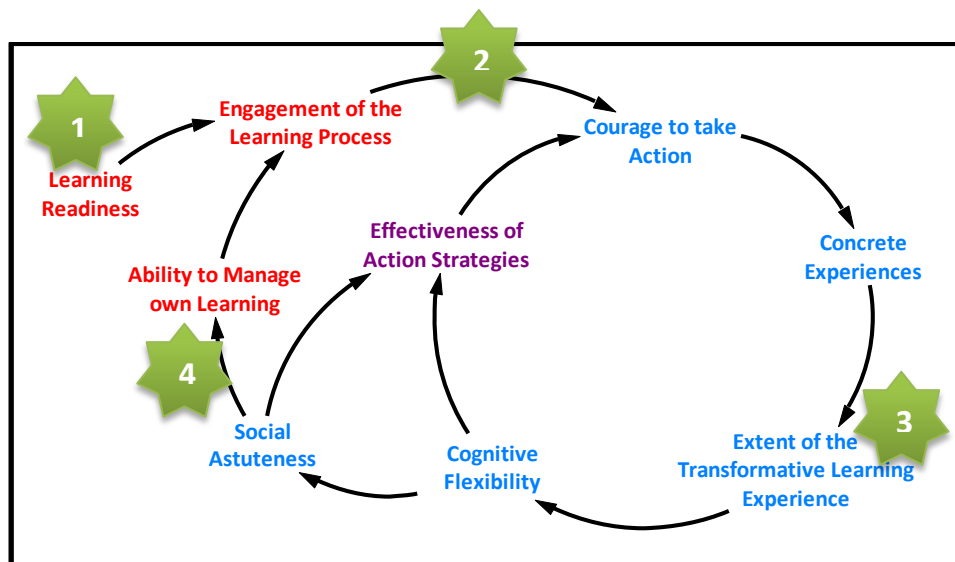


FIGURE 68. COMPLETE RESEARCH ANSWER

1. Through the data gathering process, I managed to define the dimensions of learning readiness in the context of an experiential learning management development programme. These dimensions include the antecedents, consequences and attributes of learning readiness for experiential learning. This contribution is valuable in ensuring that students who engage on an experiential learning programme have the required level of learning readiness to engage the learning process.
2. My study in addition highlights the fact the students develop courage to take action in their organisation through engagement of the learning process. Courage to take action was identified as a critical element for the success of an experiential learning process. This is because the learning process will not be complete without concrete experiences that are created through taking action. This relationship is however very specific to the context within which my study took place, as the organisation's general stance towards the management development programme is critical in order for students to be allowed to experiment in the workplace.
3. My study determined that there is a relationship between two learning theories. I determined that an experiential learning process could lead to a transformative learning experience. The meaning making process in transformative learning theory could therefore consist of an experiential learning process.
4. During the grounded theory process of my study, I defined the dimensions of the ability to manage one's own learning in detail. The result of this process was the realisation that the ability to manage one's own learning, amongst other elements, relied extensively on the ability to harness support networks. An increase in social astuteness therefore enables a student to harness networks to manage load and power thereby managing his/her own learning better.

In the next section, I will present conclusions about the research problem and answer.

## 6.3 CONCLUSIONS ABOUT THE RESEARCH ANSWER

In this section, I will explore the implications of my research for gaining insight into the research problem and how it may be valid or not as a theory. The first part of this section will focus on how well I achieved my research goals through this study. The second part will then assess the validity of my theory.

### 6.3.1 *CONCLUSIONS ABOUT THE RESEARCH ANSWER*

The research problem that I wanted to address with this study was to understand what the causal mechanism is that enables some students to fully engage the learning process and increase their management effectiveness, whereas other students on the same programme do not seem to derive the same benefit. I also wanted to determine how this mechanism functions.

The answer that I developed to address this research problem is just one example of a representation of the mechanism in the real world that produces the phenomenon that I studied. From a critical realist perspective, I accept that there may be other interpretations of this mechanism. For the purposes of my study, I however perceive this answer to be useful as a representation of reality. This answer contributed towards my personal goal of this study by providing me with a mental model that I can use to improve the learning process during the design of experiential learning programmes. The model provides key dimensions of learning readiness that should be present for a student to be positioned to engage an experiential learning programme. It also highlights the fact that a student would require courage to implement action in his/her organisation as part of the learning process. These two elements are important to keep into consideration from a programme management perspective.

The research answer further contributed towards the practical goal of my study in that it provides both the UCT GSB and AGA with a conceptual framework within which to design and manage further management development programmes. The model highlights key elements that work within the UCT GSB/AGA partnership and it can provide a basis for discussion regarding areas in the organisation where the programmes do not seem to achieve the same results.

The answer contributed towards the intellectual goals of my study by providing me with a causal mechanism that explains the dynamics that increase management effectiveness through experiential learning. It also highlighted two specific areas within which my study makes a contribution to the current literature. In this regard my study also makes a contribution towards one of the critiques of Kolb's theory. Kolb's theory was criticised for not having sufficient evidence of being able to develop skills other than psycho-motor skills. There is currently not sufficient evidence to suggest that ELT would be applicable to the acquisition of other forms of knowledge and skills (Pickles, n.d.). My study provides empirical evidence that refutes this criticism in that the students in my study developed cognitive flexibility and social astuteness as a result of their learning process.



My research answer is a retroductive theory that I do not perceive to be a 'picture of reality', it is only my construction of reality. I do however believe that it is a useful theory that explains the basic structure of the causal mechanism. I however still need to assess my theory for its viability as a representation of reality. This I will do in the next section.

### 6.3.2 *VALIDITY OF THE THEORY AND ITS LIMITATIONS*

There are many different interpretations of what constitutes a valid qualitative study and it is even suggested that there still does not exist one single definition to date (Onwuegbuzie & Leech, 2007). I drew on three authors to derive the measures that I would use for the assessment of the validity of my theory. These are as follows:

- Guba and Lincoln (1994) identified four criteria for a qualitative study, namely credibility, dependability, confirmability and transferability.
- Maxwell refers to five types of validity namely, 'descriptive validity, interpretive validity, theoretical validity, generalizability, and evaluative validity.' (Maxwell, 1992, pp. 284-285).
- According to Glaser and Strauss (1967), the criteria for a grounded theory is fit, understanding, generality and control.

Credibility refers to the probability that credible research findings will be produced. This criteria is similar to the descriptive validity criteria of Maxwell (2005) that relate to the accuracy of the descriptions of the researcher when recording and interpreting that data. According to Maxwell (2005), this form of validity is the first and foremost validity criteria and all other criteria are dependent on this criterion. Glaser and Strauss similarly deemed this type of validity criteria as being essential for a grounded theory study, but they refer to this criteria as 'fit'. This would evaluate how well the grounded theory fits with the studied phenomenon or if it 'rings true' to the research participants. For the evaluation of my study, I will refer to this criteria in accordance with Guba and Lincoln's (1994) criteria of credibility. In the next section I will assess how credible my theory is, given the research context and what possible threats to validity there may be.

#### *Credibility of the Theory*

Credibility could be established through either prolonged engagement of the research context, or verification from the research participants that they recognise the findings as being representative of their context. I have a high level of confidence that my prolonged engagement with the research context allowed me to understand the context and research participants very well. I have been involved with these management development programmes since 2006 and specifically with the AGA programmes since 2008. During this time, I have interacted very closely with the research participants and developed in-depth insight into their organisation and the factors that influence their learning process. An additional element that lends credibility towards my

theory is the fact that the theoretical sampling process was aimed at testing how well the key categories 'ring true' with research participants.

Another strategy to improve credibility is triangulation. I used triangulation in the selection of methods, specifically in selecting data gathering techniques. Data triangulation was done through the selection of documentary data, verbal data and observational data. Theory triangulation was also applied as in the selection of three learning theories during the theory building process. The last strategy that I applied to increase the credibility of my theory was to employ an assistant researcher to analyse half the documentary data (students' written assignment).

There is however one element that affects the credibility of my theory. Von Glasersfeld (1995) indicated that the meaning of words is in the mind of the speaker, not so much in the spoken words. Corroboration between actors could therefore be seen as a second order of viability to knowledge and this in turn stabilises and solidifies our experiential reality into useful cognitive structures or theories. When it is perceived that knowledge cannot be improved any further, this is taken as the truth. Although I tested my final categories through interviews, the final theory was not corroborated with stakeholders. This last step could further enhance the credibility of my theory.

Given the strategies that I implemented to ensure the credibility of my theory, I do believe that the final theory has a sufficient level of credibility. The next validity criterion that Guba and Lincoln (1994) referred to is dependability. Guba and Lincoln (1994) indicated that dependability could be established once credibility has been confirmed.

### *Dependability of the Theory*

According to Guba & Lincoln (1994) one could only establish dependability once credibility was determined. Dependability focuses on the research results and is aimed at determining if application of the same research process in a similar context with similar participants could derive the same results. Dependability regarding this study is mainly centred in the rigorous documentation of the research process and results. The grounded theory process was rigorously documented and applied. Given the level of credibility that was established in the previous section, I therefore believe that there is a fair degree of dependability in the theory due to the rigorous application of a recognised methodology, methods and sources of data. This aspect relates very closely to the confirmability criterion as indicated by Guba and Lincoln (1994).

### *Confirmability of the Theory*

Confirmability focuses on the research process and emphasises the requirement that another researcher should be able to follow the research process and produce the same results. The aim is to clearly illustrate the evidence of the process and thought processes that lead to the development of the theory. Confirmability

therefore in addition focuses on how well the researcher can demonstrate the neutrality of the research and the interpretations made. Maxwell (2005) has a similar validity criterion that he referred to as evaluative validity. Evaluative validity refers to the value judgements made by the researcher when interpreting the data.

Confirmability of this study could be determined through an analysis of the following:

- The audit trail – A detailed audit trail is available for this study that can trace the development of each key category back to the original data source as captured in NVivo.
- Demonstration of neutrality of data – I am of the opinion that it is not always possible for a researcher to interpret the data value-free. I have however aimed at eliminating researcher bias through the testing of the key categories with research participants, as well as through triangulation of data gathering techniques.
- The extent to which reasoning and evidence provided can withstand scrutiny - In this study I aimed at providing sound reasoning for each variable and relationship in the final theory. Where possible I substantiated these variables and relationships with reference to other existing theories or by providing empirical data that supports the inferences that I made.

From a critical realist perspective it would however not be realistic to fully claim confirmability, given the interpretive nature of social science. I cannot claim that a different researcher would interpret the exact same data that I used in the same manner as I did.

The last criterion of validity that Guba and Lincoln (1994) referred to is transferability. Glaser and Strauss (1967) and Maxwell (2005) referred to this criterion as generalizability.

### *Transferability of the Theory*

Maxwell's (2005) generalizability criteria is similar to the transferability criteria of Guba and Lincoln (1994) in that this criteria assesses the theories' ability to explain similar situations in other contexts. In order to provide a generalizable grounded theory, one would however need to include only limited aspects of the specific research context. The transferability of my theory will depend on a degree of similarity between the original research context and the new context to which the theory is transferred.

Key contextual similarities that would be required for transferability of the theory include:

- The organisation whose managers engage on the programme has to be fully committed to provide support to the students who engage the learning process.
- The students engaging on the programme should have an appropriate level of learning readiness as determined by this study. An assumption that I made linking to this aspect was that linking the academic programme to career advancement would increase the students' motivation to complete

the programme. This assumption should be taken into consideration when considering transferability.

- The students should have the ability to manage their own learning process.
- The learning programme has to be designed in such a manner as to facilitate the workplace learning component effectively.

The key categories developed in the final theory are sufficiently generic in nature to be transferrable to other contexts. Sufficient information is available in this study to enable another person to interpret and adapt this theory for a different context. The theory is however confined to an experiential learning based programme specifically for adult learners. In the next section, I will provide concluding statements about the validity of this theory by taking the above assessment into consideration.

### *Concluding Remarks about the Validity of the Theory*

The assessment for the validity of the theory highlights that fact the sufficient attention was given to data and process validity. Strategies were used to increase the validity of the theory in as many instances as possible. I am however of the opinion that, due to my ontological perspective, this theory is only my interpretation of reality and that other researchers may develop a different interpretation of this phenomenon that I observed. I do however believe that the theory that I developed is a useful working hypothesis that could enable me to improve the learning process to develop effective managers for organisations. I am also of the opinion that other training facilitators could adopt this theory and apply it successfully in similar contexts.

In the next section, I will give consideration to the implications of this theory for policy and practice.

## **6.4 IMPLICATIONS FOR POLICY AND PRACTICE**

The main implications for policy and practice are derived from the assessment on the transferability of the theory. One key element has an implication on policy. The management development programme that was the object of my study was a promotional requirement in AGA. This had a huge implication on the level of commitment that students had towards the completion of their studies. This factor in addition elevated the status of the programme within the organisation and it was perceived that a student selected to complete the programme was identified by the organisation for career progression. Given the internal status ascribed to the programme, the line managers of students in general (not all of them) seemed to have greater tolerance for the study activities of students and a willingness to support the students with the implementation of action learning activities.

It could therefore be concluded that consideration should be given to the internal status ascribed to such a management development programme by considering applicable company policy amendments.

The theory that was developed was deemed to be sufficiently transferable to other similar contexts. A key implication for practice is however to ensure that students embarking on such a management development programme have a sufficient level of learning readiness in order to enable them to engage the learning process. A key element relating to learning readiness for an experiential learning programme was determined to be the current job profile of the student. For the development of more effective managers it was determined that it is most suitable if the student occupies a supervisory position whilst embarking on the programme. Having some degree of decision-making authority positions the students better to implement actions during the workplace-learning component of the programme.

Another key aspect to consider is the importance of the political and organisational climate to facilitate the workplace-learning component. A key element that influenced the students' ability to manage their own studies was the level of support that they got from their line managers. The organisation should in addition have a fair degree of tolerance for experimental actions to be implemented as part of the learning process. Without line manager support and a suitable organisational climate, a student could possibly not develop the courage to implement experimental actions that facilitate the learning process.

The design and facilitation of the management development programme was excluded from this study. The success of this theory could therefore depend on the design and facilitation of the programme. Should this theory be adopted for a similar context, the practitioner will have to take this aspect into consideration.

In the next section, I will highlight implications for further research that emanated from this study.

## 6.5 IMPLICATIONS FOR FURTHER RESEARCH

Areas for further research were identified based on assumptions that I made, as well as the scope limitations of this study. I will firstly identify the areas for further research resulting from the scope limitations of my research.

One of the limitations in the scope of my study was that this study focused internally on the learning process and excluded the environmental factors that impact on the learning process. An area for further research would be to determine if the management development programme delivered the same transformational experience in different countries and cultures, or if the environmental impact on the learning process influenced valued learning. AGA is a multi-national company and this study only assessed the learning process on a global level and not on a country level. This study could therefore be repeated, using the same methodology put to re-defining the scope of the study at a country-specific level. Linked to this approach could also be to determine if there are gender differences in the learning process.

For the duration of the data gathering of this study AGA was financially in good stead. The gold price was at an all-time high and the business focus for many gold-mining companies was on maximising profits. The downturn in the gold-price and constant increase in operational costs however significantly changed the

financial outlook for many gold-mining companies. A further area of study would be to determine if the financial health of an organisation affects the level of tolerance that the organisation has in terms of allowing students to implement experimental actions in their organisation whilst engaging an experiential learning programme.

A last area for study that I have identified relates to the level of commitment that the organisation has regarding the management development programme. I made the assumption that all business units in AGA had the same level of commitment to support their manager who embarks on the management development programme. It would be of particular interest to determine the impact on the learner's transformative learning experience if his/her business unit does not have the same level of commitment towards the programme. It would particularly be of interest to determine if this has an impact on the student's courage to take experimental actions.

The above three areas for further research could further enhance and refine the theory that was developed in this paper and it could plausibly improve the transferability of the theory further. In the next section, I will provide the conclusion to this thesis.

## 6.6 CONCLUSION

This chapter provided the conclusion to this thesis. In this chapter, I provided a brief overview of each preceding chapter in this thesis in order to create the context for the discussion on the final research findings and the contribution to theory that this thesis made. The major theoretical contribution that this study made toward experiential learning theories is to highlight the role that courage plays during the action learning process. This was deemed an essential element in order to create concrete experiences that form the basis for reflection and learning. In addition to this contribution, this study defined the learning readiness dimensions that a student should have to embark on in an experiential learning process. This contribution is significant in that it has implications for practitioners and it could improve the results of the experiential learning process.

The third contribution that this study made is that it provided empirical evidence to illustrate that experiential learning could develop skills other than just psycho-motor skills. In this study students developed an increase in cognitive flexibility, as well as social astuteness in addition to other managerial skills. The last contribution that this study made was to establish a relationship between experiential learning theory and transformative learning theory. This study illustrated that the experiential learning process could facilitate a change in the students' frame of reference, leading to a transformative learning experience.

This chapter further explored the validity of the theory from a critical realist perspective and, in addition, it identified its resultant limitations. The chapter concluded with a discussion on the key implications for policy and practice.

## WORKS CITED

- Aerts, D., Apostel, L., De Moor, B., Hellemans, S., Maex, E., Van Belle, H., & Van der Veken, J. (2007). *World views: From fragmentaion to integration*. Brussels, Belgium: VUB Press. Retrieved from <http://www.vub.ac.be/CLEA/pub/books/worldviews.pdf>
- Alvesson, M., & Sandberg, J. (2011a). Generating research questions through problematization. *Academy of Management Review*, 36(2), 247-271.
- Alvesson, M., & Sandberg, J. (2011b). Ways of constructing research questions: Gap-spotting or problematization? *Organization*, 18(1), 18-23.
- Anderson, J. M. (2006). Experiential learning: From theory to practice. *NeoReviews*, 7(6), 287-291.
- Archer, M., Bhaskar, R., Collier, A., Lawson, T., & Norrie, A. (1998). *Critical realism: Essential readings*. London, UK: Routledge.
- Argyris, C. (1982). *Reasoning, learning and action: Individual and organizational*. San Fransisco, CA: Jossey-Bass.
- Argyris, C. (1995). Action science and organizational learning. *Journal of Managerial Psychology*, 10(6), 20 - 26.
- Argyris, C., Schön, D.A. 1996. *Organizational Learning II: Theory, Method and Practice*. Reading, Mass.: Addison-Wesley
- Armstrong, S. J., & Fukami, C. V. (Eds.). (2008). *The SAGE handbook of management learning, education and development*. London, UK: SAGE.
- AngloGold Ashanti. (2012). *Regions and operations*. Retrieved from <http://www.anglogoldashanti.com/en/About-Us/Regionsandoperations/Pages/default.aspx>
- Beard, C., & Wilson, J. P. (2013). *Experiential learning: A best practice handbook for educators and trainers* (3rd ed.). London, UK: Kogan Page Limited.
- Beer, S. (1966). *Decision and control*. Chichester, UK: John Wiley & Sons.
- Beer, S. (1984). The Viable System Model: Its provenance, development, methodology and pathology. *The Journal of the Operational Research Society*, 35(1), 7 - 25.
- Behaviorist. (2013). ETEC510: Media/Education/Design [wiki]. University of British Columbia, Canada. Retrieved May 28, 2013, from <http://etec.ctl.ubc.ca/510wiki/index.php?title=Behaviourist&oldid=46066>
- Bennet, A. (2006). The individual as learner. *VINE* 36(2), 136-138. Retrieved from Mountain Quest Institute: <http://www.mountainquestinstitute.com/#learning.html>
- Bergh, P. (2009). Learning among entrepreneurs in formal networks: Outcomes, processes and beyond. *Studies in Business Administration*, Series B, No. 70. Retrieved from <http://www.diva-portal.org/smash/get/diva2:236437/FULLTEXT01.pdf>
- Bevan, D., & Kipka, C. (2012). Experiential learning and management education. *Journal of Management Development*, 31(3), 193 - 197.

- Bevan, D., & Kipka, C. (2012). Experiential learning and management education. *Journal of Management Development*, 31(3), 193 - 197.
- Bhaskar, R. (2008). *A realist theory of science*. New York, NY: Taylor & Francis.
- Bhaskar, R., & Hartwig, M. (2010). *The formation of critical realism: A personal perspective*. New York, NY: Taylor and Francis.
- Billett, S. (2000). Guided learning at work. *Journal of Workplace Learning*, 12(7), 272 - 285.
- Billett, S. (2001). Learning through work: Workplace affordances and individual engagement. *Journal of Workplace Learning*, 13(5), 209 - 214.
- Blaikie, N. (2000). *Designing social research*. Cambridge, UK: Polity Press.
- Booth, W. C., Colomb, G. G., & Williams, J. M. (2003). *The craft of research*. Chicago, IL: The University of Chicago Press.
- Boud, D., & Walker, D. (1991). *Experience and learning: Reflection at work*. Geelong, Victoria: Deakin University Press.
- Brookfield, S. (1995). Adult learning: An overview. In A. Tuijnman (Ed.). *International encyclopedia of education* (pp. 375-380). Oxford, UK: Pergamon Press. Retrieved from [http://www.ict.mic.ul.ie/adult\\_ed/overview.htm](http://www.ict.mic.ul.ie/adult_ed/overview.htm)
- Brown, A., Fleetwood, S., & Roberts, J. R. (2001). The marriage of critical realism and Marxism: Happy, unhappy or on the rocks? In A. Brown, S. Fleetwood, & J. R. Brown (Eds.), *Critical realism and Marxism* (pp. 1-22). London, UK: Routledge.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London, UK: SAGE.
- Checkland, P., & Scholes, J. (1999). *Soft systems methodology in action: A 30 year retrospective*. Chichester, UK: John Wiley & Sons.
- Chieu, V. (2007). An operational approach for building learning environments supporting cognitive flexibility. *Educational Technology & Society*, 10(3), 32 - 46.
- Cho, J., & Trent, A. (2006). Validity in qualitative research revisited. *Qualitative Research*, 6(3), 319-340.
- Coates, H. (2007). A model of online and general campus-based student engagement. *Assessment and Evaluation in Higher Education*, 32(2), 121 - 141.
- Conlan, J., Grabowski, S., & Smith, K. (2003). Adult learning. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology*. Retrieved from [http://epltt.coe.uga.edu/index.php?title=Adult\\_Learning](http://epltt.coe.uga.edu/index.php?title=Adult_Learning)
- Cooper, S. (n.d.). Rand J. Spiro: Cognitive flexibility theory. *Theories of learning in educational psychology*. Retrieved from <http://www.lifecircles-inc.com/Learningtheories/constructivism/spiro.html>
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research* (3rd ed.). London, UK: SAGE.
- Craig, E. (2005). *The shorter Routledge encyclopedia of philosophy*. New York, NY: Routledge.
- Creswell, J. W. (2003). *Research design, qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.



- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. London, UK: SAGE.
- Danermark, B., Ekstrom, M., Jakobsen, L., & Karlsson, J. C. (2002). *Explaining society: Critical realism in the social sciences*. London, UK: Routledge.
- Davis, J. (2001). Conceptual change. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology*. Retrieved from [http://epltt.coe.uga.edu/index.php?title=Conceptual\\_Change](http://epltt.coe.uga.edu/index.php?title=Conceptual_Change)
- Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- Dick, B. (2002). *Action research: Action and research*. Paper originally prepared for the seminar "Doing good action research" held at Southern Cross University, Monday February 18. Retrieved from <http://www.aral.com.au/resources/aandr.html>
- Elias, D. (1997). It's time to change our minds: An introduction to transformative learning. *ReVision*, 20(1), 2 - 6.
- Elkjaer, B. (2009). Pragmatism: A learning theory for the future. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists ... in their own words* (pp. 74-89). New York, NY: Routledge.
- Engeström, Y. (1994). *Training for change: New approach to instruction and learning in working life*. Geneva, Switzerland: International Labour Office.
- Fenwick, T. J. (2003). *Learning through experience: Troubling orthodoxies and intersecting questions*. Malabar, FL: Krieger.
- Fenwick, T. J. (2001). *Experiential learning: A theoretical critique explored through five perspectives*. Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education. Retrieved from [http://www.calpro-online.org/eric/textonly/mp\\_fenwick\\_01.asp](http://www.calpro-online.org/eric/textonly/mp_fenwick_01.asp)
- Fenwick, T. J., & Edwards, R. (2013). Performance ontologies: Sociomaterial approaches to researching adult education and lifelong learning. *European Journal for Research on the Education and Learning of Adults*, 4(1), 49-63.
- Ferris, G. R., Treadway, D. C., Perrewé, P. L., Brouer, R. L., Douglas, C., & Lux, S. (2007). Political skill in organizations. *Journal of Management*, 33(3), 290-320.
- Fisher, M., King, J., & Tague, G. (2001). Development of a self-directed learning readiness scale for nursing education. *Nurse Education Today*, 21(7), 515 - 525.
- Fleetwood, S. (2011). *A note on critical realism in organisation and management studies*. Retrieved June 30, 2011, from Works and Society: <http://www.workandsociety.com/downloads/theo2.pdf>
- Fleetwood, S., & Ackroyd, S. (2005). *Critical realist applications in organisation and management studies*. London, UK: Taylor & Francis.
- Fox, S. (1997). From management education and development to the study of management learning. In J. Burgoyne, & M. Reynolds, *Management learning: Integrating perspectives in theory and practice* (pp. 21-37). London: Sage.
- Gentry, B., & Leslie, J. B. (2012, July 31). 4 steps to mastering office politics. *Forbes*. Retrieved from <http://www.forbes.com/sites/ccl/2012/07/31/4-steps-to-mastering-office-politics/>

- Gill, J., & Johnson, P. (1997). *Research methods for managers* (2nd ed.). London, UK: Paul Chapman.
- Glaser, B. G. (2002). Conceptualization: On theory and theorizing using grounded theory. *International Journal of Qualitative Methods*, 1(2), 23-38. Retrieved from <http://www.ualberta.ca/~ijqm/>
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New Brunswick, Canada: Aldine Transaction.
- Grey, C., & Antonacopoulou, E. (Eds.). (2004). *Essential readings in management learning*. London, UK: Sage.
- Grill, J. (2002, September 19). *Adult learning*. Retrieved July 21, 2013, from <http://www.fsu.edu/~adult-ed/jenny/index.html>
- Grix, J. (2002). Introducing students to the generic terminology of social research. *Politics*, 22(3), 175-186.
- Groff, R. (2008). *Revitalizing causality: Realism about causality in philosophy and social science*. New York, NY: Routledge.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Gutierrez, C. C., Baralt, S. T., & Shuck, B. M. (2010). The integrated process of engagement in adult learning. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Ninth Annual College of Education & GSN Research Conference* (pp. 33-39). Miami, FL: Florida International University. Retrieved from <http://digitalcommons.fiu.edu/cgi/viewcontent.cgi?article=1280&context=sferc>
- Haig, B. D. (1995). Grounded theory as scientific method. *Philosophy of Education*, 28(1), 1-11. This URL no longer works
- Hamel, G. (2007). *The future of management*. Boston, MS: Harvard Business School Press.
- Hamel, G. (2012). *What matters now*. San Francisco, CA: Jossey-Bass.
- Hammersley, M. (1987). Some notes on the terms 'validity' and 'reliability'. *British Educational Research Journal*, 13(1), 73-81.
- Hayakawa, S. I., & Hayakawa, A. R. (1990). *Language in thought and action* (5th ed.). New York, NY: Harcourt.
- Hedström, P. (2008). Studying mechanisms to strengthen causal inferences in quantitative research. In J. M. Box-Steffensmeier, H. E. Brady & D. Collier (Eds.), *The Oxford handbook of political methodology* (pp. 319-338). Oxford, UK: Oxford University Press. Retrieved from <http://www.nuffield.ox.ac.uk/users/hedstrom/inference.pdf>
- Heron, J. (2009). Life cycles and learning cycles. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists....in their own words* (pp. 129 - 146). New York, NY: Routledge.
- Heron, J., & Reason, P. (1996, October). A participatory inquiry paradigm. *Qualitative Inquiry*, 3(3), 274-294. Retrieved from [http://www.cnr.uidaho.edu/CSS506/506%20Readings/Participatory%20inquiry%20paradigm\\_Heron%20%20Reason\\_1997.pdf](http://www.cnr.uidaho.edu/CSS506/506%20Readings/Participatory%20inquiry%20paradigm_Heron%20%20Reason_1997.pdf)
- Herr, K., & Anderson, G. L. (2005). *The action research dissertation: A guide for students and faculty*. Thousand Oaks, CA: Sage.

- Hiemstra, R. (1981, 2002). Howard McClusky and educational gerontology. *The encyclopedia of informal education*. Retrieved from <http://infed.org/mobi/howard-mcclusky-and-educational-gerontology/>
- Holton, J. (2010). The coding process and its challenges. *Grounded Theory Review*, 9(1), 21-40. Retrieved from <http://groundedtheoryreview.com/2010/04/02/the-coding-process-and-its-challenges/>
- Institute for Human and Machine Cognition (ihmc). (n.d.). *IHMC Cmap tools*. Retrieved from <http://cmap.ihmc.us/>
- Illeris, K. (Ed.). (2009). *Contemporary theories of learning: Learning theorists...in their own words*. New York, NY: Routledge.
- Jackson, M. C. (2000). *Systems approaches to management*. New York, NY: Kluwer Academic.
- Jackson, M. C. (2003). *Systems thinking: Creative holism for managers*. London, UK: John Wiley & Sons.
- Jakubik, M. (2011). Becoming to know: Shifting the knowledge creation paradigm. *Journal of Knowledge Management*, 15(3), 374 - 402.
- Jarvis, P. (1987). *Adult learning in the social context*. New York, NY: Routledge.
- Kayes, C. (2001). *The fractured figure eight: Exploring the relationship between social and personal knowledge*. Paper presented at the Conference for Organizational Learning & Knowledge Management, London, OT, Canada. Retrieved from <http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/archive/olk4/papers/kayes.pdf>
- Kelly, C. (1997). David Kolb, The theory of experiential learning and ESL. *The Internet TESL Journal*, 3(9). Retrieved from <http://iteslj.org/Articles/Kelly-Experiential/>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *The Academy of Management Journal*, 33(4), 692-724.
- Knowles, M. S. (1980). *The modern practice of adult education*. Englewood Cliffs, NJ: Association Press.
- Kilgore, D. W. (2001). *Critical and Postmodern Perspectives on Adult Learning*. New Directions for Adult and Continuing Education, 2001: 53–62. doi: 10.1002/ace.8
- Kohn, M. L., & Schooler, C. (1982). Job conditions and personality: A longitudinal assessment of their reciprocal effects. *The American Journal of Sociology*, 87(6), 1257 - 1286.
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193 - 212.
- Kolb, A. Y., & Kolb, D. A. (2002). *Experiential learning theory bibliography: Vol. 1 1971-2005*. Retrieved from <http://learningfromexperience.com/media/2014/02/ELT-BIB-VOLUME-1-1971-2005-1-14.pdf>
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- Krauss, S. E. (2005). Research paradigms and meaning making: A primer. *The Qualitative Report*, 10(4), 758 - 770. Retrieved from <http://www.nova.edu/ssss/QR/QR10-4/krauss.pdf>
- Kuh, G. D., Cruce, T. M., Shoup, R., & Kinzie, J. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The Journal of Higher Education*, 79(5), 540-563.

- Kuh, G., Kinzie, J., Buckley, J., Bridges, B., & Hayek, J. (2007). *Piecing together the student success puzzle: Research, propositions and recommendations*. (ASHE Higher Education Report, Vol 32, No 5). San Francisco, CA: Jossey-Bass.
- Learning-Theories.com. (n.d.) *Summaries of learning theories and models*. Retrieved from Learning-  
<http://www.learning-theories.com/>
- Lehmann, H. (2001). Using grounded theory with technology cases: Distilling critical theory from a multinational information systems development project. *Journal of Global Information Technology Management*, 4(1), 45-60.
- Locke, K. (2001). *Grounded theory in management research*. London, UK: SAGE.
- Maddox, N., Forte, M., & Boozer, R. (2000). Learning readiness: An underappreciated yet vital dimension in experiential learning. *Developments in Business Simulation & Experiential Learning*, 27, 272 - 278.  
Retrieved from <https://journals.tdl.org/absel/index.php/absel/article/view/914/883>
- Mahoney, J. (2003). *Tentative answers to questions about causal mechanisms*. (Paper presented at the Annual Meeting of the American Political Science Association, Philadelphia). Retrieved from  
<http://ciece.com.ar/ciece/wp-content/uploads/Mahoney-James-Tentative-Answers-to-Questions-about-Causal-Mechanisms.pdf>
- Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, 62(3), 279-300.
- Maxwell, J. A. (2004). Causal explanation, qualitative research and scientific inquiry in education. *Educational Researcher*, 33(2), pp. 3–11. Retrieved from  
[citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.117...](http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.117...)
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA:: Sage.
- Maxwell, J. A., & Mittapalli, K. (2007). *The value of critical realism for qualitative research*. (Paper prepared for the annual conference of the International Association for Critical Realism, Philadelphia, 17-19 August).
- McClusky, H. Y. An approach to a differential psychology of the adult potential. In S. M. Grabowski (Ed.), *Adult learning and instruction* (pp. 80-95). Syracuse, NY: ERIC Clearinghouse on Adult Education, 1970. (ERIC Document Reproduction Service No. ED 045 867).
- McNiff, J. (2002). *Action research: Principles and practice*. New York, NY: Taylor & Francis.
- Meriam-Webster Unabridged. (2013, May 30). Retrieved from [http://unabridged.merriam-webster.com/?ref=U\\_mwol\\_other](http://unabridged.merriam-webster.com/?ref=U_mwol_other)
- Merriam, S. B. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions for Adult & Continuing Education*, 2001(89), 3-14.
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco, CA: Jossey-Bass.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74(Summer), 5-12.

- Mezirow, J. (2003). Transformative learning as discourse. *Journal of Transformative Education*, 1(1), 58-63.
- Mezirow, J. (2009). An overview of transformative learning. In K. Illeris (Ed.), *Contemporary theories of learning: Learning theorists ... in their own words* (pp. 90 - 105). New York, NY: Routledge.
- Mezirow, J. (2000). *Learning as transformation. Critical perspectives on a theory in progress*. San Francisco, CA: Jossey-Bass.
- Mingers, J. (2010). *Realising systems thinking: Knowledge and action in management science* New York, NY: Springer.
- Mintzberg, H. (1983). *Power in and around organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Mintzberg, H. (2009). *Managing*. San Francisco, CA: Berrett-Koehler.
- Mumford, A., & Gold, J. (2004). *Management development: Strategies for action*. London, UK: Chartered Institute of Personnel and Development.
- Murdock, K. W., Oddi, K. B., & Bridgett, D. J. (2013). Cognitive correlates of personality links between executive functioning and the big five personality traits. *Journal of Individual Differences*, 34(2), 97 - 104.
- Nathaniel, A. K., & Andrews, T. (2010). The modifiability of grounded theory. *Grounded Theory Review*, 9(1), 65-77. Retrieved from <http://groundedtheoryreview.com/2010/04/06/751>
- Newman, M. A. (2008). *Transforming presence: The difference that nursing makes*. Philadelphia, PA: F.A. Davis Company.
- Noggle, R. (n.d.) *Are University program courses wasting your time?* Retrieved from [http://www.chsbs.cmich.edu/robert\\_noggle/General%20student%20Info/up.htm](http://www.chsbs.cmich.edu/robert_noggle/General%20student%20Info/up.htm)
- Oliver, P. (2010). *The student's guide to research ethics*. Maidenhead, UK: Open University Press.
- Olsen, W. (2004). *Triangulation in social research: Qualitative and quantitative methods can really be mixed*. Retrieved from <http://research.apc.org/images/5/54/Triangulation.pdf>
- Onwuegbuzie, A. J., & Leech, N. L. (2007). Validity and qualitative research: An oxymoron? *Quality & Quantity*, 41(2), 233 - 249.
- Opfer, D. (2009). *Perspectives on research methodology* [powerpoint slides]. Retrieved from [http://www.darleenopfer.com/File/Research\\_Perspective\\_overview\\_slides\\_2008-2009.ppt](http://www.darleenopfer.com/File/Research_Perspective_overview_slides_2008-2009.ppt)
- Orey, M. (2001). *Emerging perspectives on learning, teaching, and technology*. Retrieved from <http://projects.coe.uga.edu/epltt/>
- Partington, D. (Ed.). (2002). *Essential skills for management research*. Thousand Oaks, CA: Sage.
- Pennings, P., Keman, H., & Kleinnijenhuis, J. (2006). *Doing research in political science* (2nd ed.). Retrieved from [http://www.sagepub.com/upm-data/9869\\_039458Ch02.pdf](http://www.sagepub.com/upm-data/9869_039458Ch02.pdf)
- Penrod, J., & Hupcey, J. E. (2005). Enhancing methodological clarity: Principle-based concept analysis. *Journal of Advanced Nursing*, 50(4), 403-409.
- Perry, C. (1995). *A structured approach to presenting PhD theses: Notes for candidates and their supervisors*. Paper presented to the ANZ Doctoral Consortium, University of Sydney, Australia. Retrieved from <http://www.ece.nus.edu.sg/stfpage/eleamk/phd/phdth1.html>

- Phillips, D., & Burbules, N. (2000). *Postpositivism and educational research*. New York, NY: Rowman & Littlefield.
- Pickles, T. (n.d.). *Experiential learning articles and critiques of David Kolb's theory*. Retrieved from <http://reviewing.co.uk/research/experiential.learning.htm#2>
- Posner, G. J., Strike, K. A., Hewson, P. W., & Gertzog, W. A. (1982). Accommodation of a scientific conception: Toward a theory of conceptual change. *Science Education*, 66(2), 211-227.
- Ramage, M., & Shipp, K. (2009). *Systems thinkers*. London, UK: Springer.
- Reason, P., & Bradbury, H. (Eds.). (2008). *Handbook of action research: Participative inquiry and practice*. London, UK: Sage.
- Ryan, T. (2008). *Systemic management practices*. Cape Town, SA: Graduate School of Business, University of Cape Town.
- Ryan, T. (2009). *Course notes*. Cape Town, SA: Graduate School of Business, University of Cape Town.
- Ryan, T. (2010). *Post graduate diploma in management practice*. Cape Town, SA: University of Cape Town Graduate School of Business.
- Sayer, A. (1992). *Method in social science: A realist approach* (2nd ed.). London, UK: Routledge.
- Sayer, A. (2000). *Realism and social science*. Thousand Oaks, CA: SAGE.
- Schatzki, T. R., Cetina, K., & Von Savigny, E. (2001). *The practice turn in contemporary theory*. New York, NY: Routledge.
- Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York, NY: Basic Books.
- Senge, P. M., Kleiner, A., Roberts, C., Ross, R. B., & Smith, B. J. (1994). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. London, UK: Nicholas Brealey.
- Shuck, B., & Wollard, K. (2010). Employee engagement & HRD: A seminal review of the foundations. *Human Resource Development Review*, 9(1), 89-110.
- Sipos, Y., Battisti, B., & Grimm, K. (2008). Achieving transformative sustainability learning: Engaging head, hands and heart. *International Journal of Sustainability in Higher Education*, 9(1), 68 - 86.
- Skinner, B. F. (1977). Why I am not a cognitive psychologist. *Behaviorism*, 5(2), 1-10.
- Smith, M. (1996, 1999, 2010). Andragogy: What is it and does it help thinking about adult learning? *The encyclopedia of informal education*. Retrieved from <http://infed.org/mobi/andragogy-what-is-it-and-does-it-help-thinking-about-adult-learning/>
- Smith, M. (2001, 2010). David A. Kolb on experiential learning. *Encyclopedia of informal education*. Retrieved from <http://infed.org/mobi/david-a-kolb-on-experiential-learning/>
- Social astuteness. (n.d.) In *Nursing Theory Forum Wiki*. Retrieved from [http://nursingtheoryforum.wikia.com/wiki/Social\\_Astuteness](http://nursingtheoryforum.wikia.com/wiki/Social_Astuteness)
- Spiro, R. J., Coulson, R. L., Feltovich, P. J., & Anderson, D. K. (1988). Cognitive flexibility theory: Advanced knowledge acquisition in ill-structured domains. In V. Patel, & N. Hillsdale (Ed.), *Tenth Annual Conference of the Cognitive Science Society Proceedings*, (pp. 640-653). Hillsdale, NJ: Erlbaum.
- Stacey, R. (2003). Learning as an activity of interdependent people. *The Learning Organization*, 10(6), 325-331.

- Tang, Y. (1997). Fostering transformation through differences: The synergic inquiry (SI) framework. *ReVision*, 20(1), 15-19.
- Tell, J. (2011). Designing management training using a learning network approach. In S. A. Hörte (Ed.). *Research on technology, innovation and marketing management* (pp. 103-116). Halmstad, Sweden: Centre for Technology, Innovation and Marketing Management, Halmstad University. Retrieved from <http://www.diva-portal.org/smash/get/diva2:452309/FULLTEXT01.pdf>
- Thorpe, R., Pavlica, K., & Holman, D. (1998). Recent developments in the theory of learning and the identity of the manager. *Zagreb International Review of Economics & Business*, 1(2), 91-105. doi:1331-5609
- Treasurer, B. (2013). Courage is the key to great leadership. *EO: Entrepreneurs' Organization*. Retrieved from <http://www.eonetwork.org/knowledgebase/specialfeatures/pages/courageisthekeytogreatleadership.aspx>
- Trowler, V. (2010). *Student engagement literature review*. York, UK: Higher Education Academy. Retrieved from Department of Educational Research: [https://www.heacademy.ac.uk/sites/default/files/StudentEngagementLiteratureReview\\_1.pdf](https://www.heacademy.ac.uk/sites/default/files/StudentEngagementLiteratureReview_1.pdf)
- University of Cape Town Graduate School of Business. (2013). *About GSB*. Retrieved from <http://www.gsb.uct.ac.za/s.asp?p=132>
- University of South Alabama. (n.d.). *Cognitive flexibility theory*. Online learning laboratory. Retrieved from [http://www.southalabama.edu/oll/mobile/theory\\_workbook/cognitive\\_flexibility\\_theory.htm](http://www.southalabama.edu/oll/mobile/theory_workbook/cognitive_flexibility_theory.htm)
- Usher, R., Bryant, I., & Johnston, R. (1997). *Adult education and the post-modern challenge: Learning beyond the limits*. New York, NY: Routledge.
- Vince, R. (1998). Behind and beyond Kolb's learning cycle. *Journal of Management Education*, 22(3), 304-319.
- Von Glasersfeld, E. (1982). An Interpretation of Piaget's Constructivism. *Revue Internationale de Philosophie*, 36(4), 612-635. Retrieved from <http://www.univie.ac.at/constructivism/EvG/papers/077.pdf>
- Von Glasersfeld, E. (1989). *An Exposition of constructivism: Why some like it radical*. Ecology of Mind. Retrieved from <http://www.oikos.org/constructivism.htm>
- Von Glasersfeld, E. (1995). *Radical constructivism: A way of knowing and learning*. London, UK: Taylor & Francis.
- Walker, L. O., & Avant, K. C. (1995). *Strategies for theory construction in nursing* (3rd ed.). Norwalk, CT: Appleton & Lange.
- Wallace, S. (n.d.). *Group learning*. Transformative Learning Theory Retrieved from: <http://transformativelearningtheory.com/groupLearning.html>
- Wals, A. (2010). Mirroring, Gestaltswitching and transformative social learning: Stepping stones for developing sustainability competence. *International Journal of Sustainability in Higher Education*, 11(4), 380-390.
- Wankel, C., & DeFillippi, B. (Eds.). (2002). *Rethinking management education for the twenty-first century*. Charlotte, NC: Information Age Publishing.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.
- Whitehead, J. A., & McNiff, J. (2006). *Action research: Living theory*. London, UK: Sage.

- Wlodkowski, R. (2008). *Enhancing adult motivation to learn: A comprehensive guide for teaching all adults*. San Francisco, CA: Jossey-Bass.
- Wood, M. M. (2007). *Pre-requisites for learning: Goodness of fit with Professor Reuven Feuerstein's cognitive enrichment programs*. Retrieved from <http://www.scel.org/resources/Learning%20Readiness.pdf>
- Yeganeh, B., & Kolb, D. (2009). Mindfulness and experiential learning. *OD Practitioner*, 41(3), 13-18.
- Yeld, N. (2001). *Assessment equity & language of learning: Key issues for higher education selection in South Africa*. (Thesis presented for the degree of Doctor of Philosophy; in the department of Education, Faculty of Humanities. Cape Town: University of Cape Town).
- Yeo, R. K., & Gold, J. (2010). Problem-based leadership: Nurturing managers during turbuklent times. *Business Strategy Series*, 11(3), 145-151.
- Yin, R. K. (2003). *Case study research design and methods (3rd ed.)*. Thousand Oaks, CA: Sage.



## APPENDIX A – CONCEPTUAL FRAMEWORK – DESCRIPTION OF ACTION RESEARCH CYCLES

### DATA COLLECTION AND ANALYSIS

#### *ACTION RESEARCH CYCLE 1*

The first action research cycle was aimed at identifying factors that affect students' ability to successfully complete their programmes in general. The following data collection techniques were used:

- Participant observation
- Textual analysis:
  - Programme reviews
  - E-mail correspondence with past students
  - Written inputs from current students

*Participant Observation:* Given the researcher's close involvement in the management development programmes, participant observation as a data collection method could be applied without any difficulties in accessing the research site. Participant observation is aimed at identifying issues of interest and then recording as much as possible of what is happening for later analysis. Participant observation could however have drawbacks in that the researcher could easily misinterpret actions/interactions and assign incorrect meanings. It is therefore always required to verify observation with participants to avoid misinterpretations. (Corbin & Strauss, 2008)

*Textual Analysis:* Two types of text were collected during this phase of the project. Elicited texts included a mailed questionnaire that was sent to past and present students for their input. A response rate of 72% was achieved from this questionnaire and the inputs received contributed significantly towards this phase of the project. In addition to the mailed questionnaire, students that attended their contact sessions at the University were asked to provide a written input based on four key questions that were formulated. Due to the more controlled nature of this process, a 100% response rate was achieved. Elicited texts directly involved the research participants in writing the data. In order to obtain an alternative perspective, extant texts were sourced that were focused on addressing a similar question as that posed to the research participants directly. Even though more limited, a good input was obtained in the form of programme reviews conducted by the University and AngloGold Ashanti in prior years.

Charmaz however cautions that text should not be taken as objective fact and that it is important to study texts in their context. Charmaz concludes that "All texts are products, the processes that shape them may be ambiguous, invisible, and, perhaps, unknowable." (Charmaz, 2006, p. 39)

Multiple data sources however require close attention to data treatment in order to allow for the consolidation of various data types for later data analysis. For the purposes of this study, a knowledge database was developed in MS Access that allowed for the consolidation of initial data collection.

The knowledge database enabled the researcher to continuously collect data from multiple sources, whilst being able to categorise each data source and concurrently start analysis. The knowledge database was used for the initial data collection and coding process that lead to the identification of the first set of emerging categories that were formulated.

Similarly to phase one of this study, concept analysis was used as a method to identify gaps in the emerging categories.

### *ACTION RESEARCH CYCLES 2-4*

After the analysis of the first set of categories, it was evident that there were gaps in the properties and dimensions of the emerging categories. The second, third and fourth action research cycles therefore aimed at developing more rigorous categories for the identified supports systems – organisational, social and academic. The data gathering techniques utilised for these three action research cycles were focus group discussions. Six focus group discussions were conducted with students across different programmes. Conversational interviews were used during these discussions. The discussions were recorded after obtaining permission from the participants and then transcribed. In addition to the focus group discussions, in-depth interviews were conducted with two of the three programme co-ordinators of the GSB, as well as the main programme co-ordinator at AGA. The programme co-coordinators have a very close relationship with the students and their unique insight into personal challenges that affect the students' ability to engage their studies was a rich source of data.

Open-ended questions were developed to guide the interview process. Charmaz (2006) indicates that this data gathering technique allows the researcher to focus the interview and encourage detailed discussion on key topics. This technique allows the interviewer to explore any part of the interview in more depth, go back to prior topics, explore the research participant's thoughts and feelings and manage the general discussion in order to obtain the required data most relevant to the research topic. Corbin and Strauss (2008) in addition indicate that most dense or in-depth interviews are unstructured. Intensive interviews in addition compliment other data gathering methods.

At completion of action research cycles one to four, it was felt that the first key categories were sufficiently explored to provide explanatory categories. There were however two further categories that had to be explored in more detail – relevance of study material, as well as cognitive ability.

## *ACTION RESEARCH CYCLES 5 AND 6*

Action research cycle five focused on exploring the category “Relevance of Study Material”. The data gathering techniques for this cycle included:

- Documentary reviews – review of student reflective papers;
- Interviews – an in-depth interview was conducted with an academic director of the GSB; and
- Focus group discussions with students

Cycle six focused on exploring the category “Cognitive Ability”. The data gathering and analysis techniques included:

- An analysis of student results against the aptitude tests that are written before commencement of the programme.

These six action research cycles of data collection and analysis enabled the researcher to identify the categories that explain the key factors that create the conditions for conceptual change to occur.

## RESEARCH RESULTS

The first phase of the study was aimed at defining the key factors that impact on the learning process. The research question for this phase was:

***“What are the key factors that affect the learning process?”***

Phase one consisted of six action research cycles, aimed at gathering and analysing data to emerge key categories. The process and results of these six cycles will be presented in the following sections.

### *ACTION RESEARCH CYCLE 1 – FACTORS THAT AFFECT LEARNING*

Action research cycle one was aimed at broadly identifying all factors that affect the learning process. The specific data gathering techniques used for Cycle One was mainly a textual analysis and participant observation.

- 1) *Participant observation:* The researcher as the academic co-ordinator for the management development programmes were uniquely positioned to make critical observations about social change in the research participants. Comprehensive field notes were kept of these observations. Participant observation was supplemented with informal discussions with students. Data gathered from these discussions were recorded in a field diary.
- 2) *Participant Inputs:* Guiding questions were provided to research participants in the form of leading, open-ended questions. The students were requested to reflect on all aspects that impact on their learning experience. These inputs were obtained whilst the students attended a contact session at

the GSB. It was therefore very effective to obtain the feedback and a 100% response rate was achieved. One-hundred-and-nine inputs were received from students across five different programmes. In addition, these questions were e-mailed to students whom have already completed the programme and could reflect over their learning process. Seventy-Five responses were received and analysed as part of this process.

These multiple data sources required attention to data treatment in order to allow for the consolidation of various data types for accurate data analysis. For the purposes of this study, a knowledge database was developed in MS Access that allowed for the consolidation of initial data collection.

The knowledge database enabled the researcher to continuously collect data from multiple sources, whilst being able to categorise each data source and concurrently start analysis. Key functionalities were built into the database that allowed for accurate data treatment and compliance to a rigorous research process. A screen print of the database as well as its functionalities is depicted below:

The screenshot shows a database form with several sections and fields. Red callout boxes with arrows point to specific features:

- Selection of data collection technique:** Points to the 'Research Type' dropdown menu, which has 'Participant Observation' selected.
- Selection of Data Source type:** Points to the 'Question' dropdown menu, which has 'Meeting' selected.
- Record of date, time, place etc:** Points to the 'Event Description RH' text area, which contains a detailed account of a meeting.
- Recording of data piece/information collected:** Points to the 'Event Description RH' text area.
- Field created for Memo writing:** Points to the 'Concept Formation' section, which includes a 'Coding' field.
- Fields created for initial coding:** Points to the 'Label', 'Definition Category', 'Category', and 'Relationship' fields.

The form includes the following fields and sections:

- Data Generation:** Lesson ID, Question, Research Type, Literature, Reflective Diary.
- Event Name:** SAPS Meeting with their Training People
- Status:** [Empty field]
- Location:** SAPS Dir Building Services Office
- Date:** 22 Dec 06
- Time:** 14:00 - 15:30
- Event Description RH:** Had the first official meeting with the SAPS Training people. Attendees included Juan Smit (Acting Dir Building Services) Jean (Bldg Serv), Bldg Services HR lady, Capt Belinda Watters (Training) and custodian responsibilities and devolution of programme for an individual from the start to exist. We decided that they must for the provinces or stations as building managers. I will follow that up. At the moment we are looking at 4 programmes: Management development for SC managers; MD for asset managers, MD for Housing managers, MD for program depending on the clients requirements. I also told them about organisational problems through the application of theory taught. Event Description RH: I am not sure at this stage how we will get the SAPS to commit keen on the training concepts. I am however concerned that the training that we want to present will be at too high a level for some of the SAPS people.
- Concept Formation:** Coding, Label, Definition Category, Category, Relationship, Notes.

FIGURE 69. DATABASE FUNCTIONALITY FOR DATA TREATMENT DURING DATA COLLECTION

The database was used for the initial data collection and open coding process that lead to the identification of the first set of categories that were formulated. Initial memos were recorded that additionally allowed for the formulation of the first tentative categories. A short extract as an example of the initial memo and coding process is depicted below:

Programme Name	CODING
Student Name	
<p><b>SUPPORT RECEIVED/ REQUIRED FROM SOCIAL NETWORKS</b></p> <p>I think this is in all probability the support that is most needed amongst all three. The bulk of the work is done while at home. As such support from the family is very important. If too much pressure is placed on the family life without the necessary understanding and support the tendency to drop out of the course will increase. Working with other students is a must for purposes the testing ideas and concepts.</p>	<p>Family support very important</p> <p>Too much pressure without family understanding – tendency to drop out.</p> <p>Working with other students to test ideas and concepts</p>
<p><b>SUPPORT RECEIVED BY THE EMPLOYER/ORGANISATION</b></p> <p>This is also very important, especially because the content of the course is so integrated with the organisation. The necessary support, buy – in and understanding from line managers and upwards is crucial. The granting of study leave in addition hereto is very important as time to do the necessary assignments is normally very short.</p>	<p>Understanding (buy-in) from line managers</p> <p>Granting of study leave</p>
<p><b>SUPPORT RECEIVED FROM GSB/ TRAINING INSTITUTION</b></p> <p>The institution has a very important role to play. Clear instructions, guidelines and easily accessible study material is a must. The compulsory contact sessions are invaluable. Accessibility to tutors is also very important.</p>	<p>Clear instructions; guidelines; easily accessible study material</p> <p>Compulsory contact sessions; accessibility to tutors</p>

FIGURE 70. EXTRACT FROM THE DATA ANALYSIS OF QUESTIONNAIRES

The initial coding process could commence as a large set of data was available. The initial coding process resulted in the identification of 314 initial codes that could be used to categorise further data.

Further coding commenced after identification of the initial codes. The first set of tentative categories that emerged as a result of the first part of the second coding process comprised of 4 categories that represented all the main factors that impact on a student’s learning process.

- Ability to manage the learning process
- Relevance of study material
- Cognitive Ability
- Suitability of support networks

The first category identified were well developed and it was decided that it had sufficient data to support the inclusion of this category. The last three categories however required further exploration.

One of these categories related to support networks. This category was labelled ‘suitability of support networks’ at this stage. Analysing the key elements related to this category indicated that there are mainly three types of support networks that enable students to fully engage their learning experience. These support networks are social support, organisational support and academic support. This category seemed to be very

dense and not fully explored. It was therefore decided to continue data gathering in order to develop this category further. It was also decided to separate this category into three different categories. These categories were further explored in research cycles two – four.

The second category that required further analysis related to the student's cognitive ability to understand and implement the theories taught. The cognitive ability category related to the students' ability to comprehend new concepts and integrate learning into their management practice. This further allowed for the implementation of a student's study plan that leads to academic results. It was felt that this category required further exploration and research cycle five was therefore focused on exploring this category further.

The third category that was identified for further exploration related to the relevance of the learning material to the students management practice. It was found that learning material that is relevant and useful would generate interest in the subject matter that impacted on the students' level of commitment and dedication to complete their assignments. This category was not sufficiently developed and research cycle six was aimed at further data gathering in order to explore this category in more detail.

### *ACTION RESEARCH CYCLES 2-4 – EXPLORING SUPPORT NETWORKS*

Data gathering for cycles two to four focused on interviews with research participants. Conversational interviews were conducted with students as well as two of the three Programme Co-ordinators that are closely involved with these management development programmes. Due to the similarity in the research questions for these three cycles, the interviews focused on gathering data for all three cycles.

An additional 117 data pieces were gathered relating to social support networks. An extract of this process is depicted in the diagram below.

115	My family members should always encourage me to go to church for spiritual guidance. This would boost my enthusiasm to succeed in my studies	Level of spiritual guidance provided by family	Spiritual guidance	Managing personal wellness
116	and I would also want to see one of my family members joining me to the gym because that has always been my routine and it is boring to go alone	Engagement of social network in encouraging a healthy life style through exercise (gym)	Physical exercise	Managing personal wellness
117	Further my tennis club members need to encourage me to do exercises that would re-energize my drive to study further	Engagement of social network in encouraging a healthy life style through exercise (tennis)	Physical exercise	Managing personal wellness

**TABLE 4 ADDITIONAL DATA GATHERED ON SOCIAL SUPPORT NETWORKS**

The data gathered in addition allowed for the identification of a further 100 data pieces related to organisational support networks. An extract of this data analysis process is depicted below.

96	Logistical support - further research outside organisation	Logistical support	Logistical support received from the organisation
97	selection of appropriate candidates for studies	Organisational commitment	Commitment that the organisation displays towards the programme
98	Time of after residential module	Time management	Support provided from the organisation to assist the student in making time available for studies
99	Organisation to buy-in to the teaching methodologies	Organisational buy-in	The degree to which the organisation believes in the value of the academic programme
100	Value provided to organisation by students doing their studies		The value that students contribute to their organisation as a result of studies

**TABLE 5 ADDITIONAL DATA GATHERED ON ORGANISATIONAL SUPPORT NETWORKS**

<b>Source Name:</b>	E-mail Questionnaire (IMDP6)	
<b>Source Classification:</b>	Organisational Support	
<b>Author</b>		
<b>Data piece</b>	<b>Memoing</b>	<b>Coding</b>
Support from direct manager	Line manager support is not always there	Line Manager support
Manager consideration with giving over-and-above tasks	Manager/supervisor consideration with the assignment of tasks	Support with workload
Ability to take time to work on studies during working hours	Using work hours for studies	Using work hours for studies
Checking assignments and giving comments on validity	Giving inputs on assignments (also validity)	Feedback on assignments and validity thereof
commented on things that I have ability to change and this that i can't change i.e. above my ability was addressed to geology manager	Assist with the selection of ARL assignments	Inputs on selection of assignments
gave me support on encouraging me to continue with the programme	Support and encouragement	Emotional support
Provision of additional training (eg Financial management for non-finance managers)	Supplementary training	Provide additional (complimentary) training

**FIGURE 71. EXTRACT FROM MEMO AND CODING PROCESS**

Preliminary categories were identified to start getting a grasp of the key dimensions of the category related to organisational support. The coding process facilitated the identification of 13 key categories relating to organisational support.

The last type of support system that was explored was academic support. The data gathering process in cycle four enabled the development of 85 additional codes that will be taken forward into the concept development phase. An extract of these codes are depicted below.

80	Sample assignments	Course Material	Relevance and quality of course material
81	More face-to face communication during inter-module period	Lecturer contact	Appropriateness of the support provided
82	Study groups or mentoring	contact with fellow students	Effectiveness of a Community of practice instituted by the Academic Institution
83	Meeting space during inter module periods	Meeting space during inter-module period	Appropriateness of the support provided
84	Face book page for programmes	Timeous and effective communication	Effectiveness of communication provided by the Academic Institution
85	Refresher sessions before hand in of major assignments	Timeliness of academic support in relation to assignment schedule	Appropriateness of the support provided

**TABLE 6 ADDITIONAL DATA GATHERED ON ACADEMIC SUPPORT NETWORKS**

The completion of action research cycles two, three and four provided sufficient data to confirm the initial categories identified in research cycle 1. Research cycles 2-4 did not provide evidence that supported the development of new categories, it did however confirm the need for a student to be able to develop and harness support networks that will enable engagement of the learning process.

This added another dimension to the category that was identified in cycle one – ability to manage the learning process. It was therefore decided to expand this category to include the ability to develop and harness support networks. This category was renamed – ability to manage own learning.

There was however two more action research cycles that had to be completed in order to explore the remaining two categories that were identified in action research cycle one.

At this stage of the research process, the following categories were therefore identified:

- Ability to manage own learning
- Relevance of study material
- Cognitive Ability

The next category that would be explored through action research cycle five was relevance of study material.

### *ACTION RESEARCH CYCLE 5 – EXPLORING RELEVANCE OF STUDY MATERIAL*

Action research cycle five was aimed at gaining further insight into the category currently identified as the relevance of study material.

Data gathering for cycle five included documentary reviews as well as interviews. Documentary reviews were conducted on reflective papers that students wrote; aimed at identifying how relevant they found learning material and how it was incorporated into their management practice. Reflective writings of 50 students across two separate contact modules were included in this analysis. The reflective papers were designed to determine how students were conceptualising theories taught and how they made it relevant in their context. In addition, an in-depth interview was conducted with an Academic Director at the GSB who designed these programmes, as well as focus group discussions with students. Three focus group discussions were conducted, with a total of 18 students. Interviews were recorded with permission from the research participants and transcribed. An extract of a transcribed interview is depicted below.

<p>TR: And it is not something you can just define, you actually have to experience it... and uh one of the ways except you probably do not have enough time in module 1, is scenarios. Think through a scenario what will happen if I don't do anything, and if that happens what are the consequences for me and what are the consequences in the situation.</p> <p>ES: That , that sounds that sounds good Tom, but isn't that looking at relevance of a problem they define themselves, how do we relate that to relevance of material what we determine what the material is?</p> <p>TR: Ja, then, then we get the material (...) how can that material help them deal with the problem that characterise the work situation. The problems are relevant, therefore it is important to actually deal with that problem how they're going to deal with those problems,, can we provide them with the tools, and ideas and concepts of dealing with the, the .... Problems, so the material becomes relevant because they can see how it can be useful in their practices to deal with problems that are relevant to them.</p> <p>ES: ok, that's why for the AngloGold for example you use, you used the themes that they're struggling with, in the organisation at the moment ..... to bring things in like that....</p>	<p>Establishing relevance through building scenarios</p> <p>Relevance implies consequences for either person or situation (ie something must happen as a result of...)</p> <p>Usefulness of course material to assist students in dealing with problems in their context</p>
--	--

FIGURE 72. EXTRACT FROM CONVERSATIONAL INTERVIEW



The data gathering process resulted in the identification of 41 additional codes related to the relevance of learning material. Key concepts identified in this research cycle were:

- Knowledge of and engagement of work context as learning platform
- Appropriateness of current job to implement theories
- Timeliness of delivery of theory in relation to organisational business processes and timelines

The above key concepts identified in this research cycle related to the timeliness of the learning experience in relation to the student's personal and work circumstances that influence how the student engage the learning process. Relevance of the study material is therefore influenced by the suitability of a student's current job in relation to the course content. This will impact on the student's ability to implement theories in the work context that will create concrete learning experiences. The more learning experiences a student can create, the more relevant the student's perception of the theories will be. The category that was formulated based on the findings of this research cycle were – readiness for learning. At this stage of the research process, the following categories were therefore identified:

- Ability to manage own learning
- Readiness for learning
- Cognitive Ability

The next action research cycle focused on exploring the cognitive ability category further.

### *ACTION RESEARCH CYCLE 6 – EXPLORING COGNITIVE ABILITY*

One of the key factors that affect the favourable judgement of relevance of study material, is the cognitive effort required to establish relevance. This category was deemed significant and required to understand better. The last research cycle therefore aimed at gathering data to explore the category currently labelled as cognitive ability. The key question related to this action research cycle was:

“What cognitive skills do students have that are excelling on the programmes that is lacking in those that are not performing on the programmes?”

The goal of this research cycle was to determine if a high cognitive ability is a requirement in order for students to succeed on this programme or not. If this was not found to be a deciding factor, then it would need to be determined what the key criteria are that enables a student to succeed on these programmes.

Data used for this part of the process was the learner diagnostic tests (LDT) that were written by the students prior to their acceptance on the programme, as well as the academic results of students. The learner diagnostic tests consisted of two types of tests. A reasoning test, that will be referred to as the SRT, as well as a the Placement Test in English for Educational Purposes (PTEEP). The PTEEP was designed as an alternative to the Senior Certificate for admission of students to higher education. The PTEEP was developed at the

University of Cape Town and was aimed at measuring cognitive academic language proficiency. This test could assist in identifying students that would succeed in their studies in which language proficiency will be an important, but not sole variable. The PTEEP only assess reading and writing, not listening and speaking. (Yeld, 2001)

Data for 180 students were available for this data analysis process. The sample consisted of:

- 2 x modular (3 x modules of 1 week) Certificate level programmes – 66 students
- 1 x modular (2 x modules of 2 weeks each) certificate level programme – 30 students
- 2 x modular (2 x modules of 2 weeks each) PGDip programmes - 47 students
- 2 x workshop model PGDip programmes – 18 students
- 1 x modular (3 x modules of 1 week) PGDip programme – 29 students

TOTAL STUDENTS: 180

A data clean-up was conducted relating to the following:

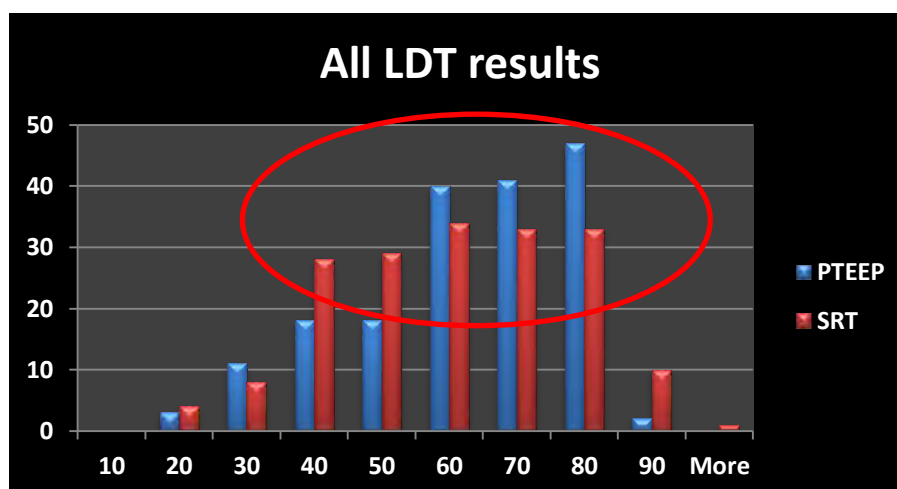
- Students without LDT scores were removed from the sample
- Students who did the LDT test but never commenced with the programme were removed from the sample.
- 60 names removed from the original sample due to the above

Key challenges related to this data gathering process: a key challenge in this process was the timing and availability of student records. It was not possible to only include AGA students in this process, as the sample size would have been too small. It was therefore decided to include students from similar programmes for this data analysis process. The same selection criteria are however applied for all students on either the certificate or Post Graduate Diploma programmes. This factor could provide a measure of validity to the sample group.

The analysis of LDT scores in relation to academic performance was done separately for the postgraduate and certificate level programmes given that the entry requirements for these programmes are different. The analysis could not provide sufficient argument that cognitive abilities are a key determinant factor for students to excel on their programmes. An analysis of the Post Graduate Diploma Programme was also completed to either confirm or refute these findings.

An analysis of the scores for the Post Graduate Diploma Programme on the PTEEP revealed that students who obtained higher marks on the programmes did also not necessarily obtain the highest marks in the PTEEP test overall. This is congruent with the finding on the Certificate Level Programme. Appendix C – Data Analysis during Action Research Cycle 6

A preliminary analysis to determine the overall score of the group of students revealed that the majority of students enrolled on the programmes obtained an LDT score of 40% and above, whilst the majority obtained PTEEP scores of 60% and above. This is depicted in the graph included in Figure 73.



**FIGURE 73. OVERALL STUDENT RESULTS, LDT AND PTEEP**

It is evident that students who succeeded on the programmes in general performed better on the PTEEP than on the SRT. Resulting from this preliminary analysis of the test scores, it was decided to divide the overall results into 4 categories to facilitate the analysis of the results. These categories are as follows:

- Class 1 - Students who obtained a course average of above 70%
- Class 2 - Students who obtained a course average between 60 and 69%
- Class 3 - Students who obtained a course average below 60%
- Class 4 – Students who did not manage to meet the academic requirements of the programme and failed their qualification.

At this point, the analysis was also divided into the two different programmes, as the entry and academic requirements for these programmes differ.

An analysis of the scores for the Certificate Level Programme on the PTEEP revealed that students who obtained higher marks on the programmes did not necessarily obtain the highest marks in the PTEEP test overall. They were however stronger in the following areas:

- metaphorical expression;
- communicative function;
- relationship discourse; and
- writing skills

This observation was made based on the difference between the scores obtained for the various assessment criteria, and not based on the overall scores. The areas that had the largest difference in scores are highlighted in blue. A difference in score of 10% or more was deemed significant. These results are depicted in Table 7.

**TABLE 7. RESULTS OF THE CERTIFICATE LEVEL PROGRAMME: PTEEP**

	Class 1 (>70%)	Class 2 (60% - 69%)	Class 3 (<60%)	Class 4 (Incomplete)
PTEEP_Total	93.95833	88.7931	81.27778	95.58824
Overall	53.47592	50.5864	46.12232	54.42757
Vocab	58.41174	51.88172	52.77778	60.26249
Metaphor	58.03571	58.62069	44.44444	57.64706
Inferencing	54.55729	55.60345	48.61111	52.20588
Rel Cohesion	68.75	70.11494	61.57407	67.40196
Comm Function	53.03819	52.01149	43.05556	52.94118
Rel Discourse	53.11725	50.0975	37.38426	55.66789
Genre	47.09821	45.4844	41.93122	45.09804
Visual	72.66214	72.14854	65.20865	73.06361
Essential	61.28331	57.05697	66.14474	59.47447
Numerical	73.05021	72.53168	65.717	73.42886
Writing	42.125	37.31034	32.77778	45.82353

A similar analysis of the SRT results for this programme in addition revealed that students who excelled on the certificate level programme also did not perform significantly better with the overall SRT results. They however had better skills in observing permutation in data and the ability to acknowledge multiple conclusions. These results are depicted in Table 8.

**TABLE 8. RESULTS OF THE CERTIFICATE LEVEL PROGRAMME: SRT**

	Class 1 (>70%)	Class 2 (60% - 69%)	Class 3 (<60%)	Class 4 (Incomplete)
SRT_Total	32.55932	30.80952	28	32.09091
SRT Overall	52.2209	50.82704	46.37037	50.43044
Visual	54.23729	51.56794	50.81301	54.21286
Evidence	54.46909	55.17241	47.49104	52.46679
Validity	51.82292	49.48276	46.94444	51.17647
Data Relationships	64.99256	65.8867	59.92063	63.34034
Essence	51.04167	48.73563	48.88889	47.2549
Speculation	43.40278	40.11494	37.59259	41.12745
Permutation	43.92361	38.7931	35.64815	44.65686
Multiple conclusions	51.5625	49.65517	42.22222	51.76471
Chance	43.91572	38.20533	40.90909	43.08155
Language	47.61029	46.24746	43.13725	45.84775

The analysis of the cognitive ability of top performers on the certificate level programme therefore revealed that students who achieved top academic marks did not generally perform better in the overall tests, but they performed better in terms of the following dimensions of the respective tests:

- metaphorical expression;
- communicative function;
- relationship discourse;
- writing skills ;
- permutation of data; and
- acknowledging multiple conclusions.

This analysis could however not provide sufficient argument for cognitive abilities that enabled students to excel on their programmes. An analysis of the Post Graduate Diploma Programme was also completed to either confirm or refute these findings.

An analysis of the scores for the Post Graduate Diploma Programme on the PTEEP revealed that students who obtained higher marks on the programmes did also not necessarily obtain the highest marks in the PTEEP test overall. This is congruent with the finding on the certificate Level Programme. They were however stronger in the following areas:

- vocabulary;
- Inferencing;
- relationship cohesion; and
- writing skills

This observation was made based on the difference between the scores obtained for the various assessment criteria, and not based on the overall scores. The areas that had the largest difference in scores are highlighted in blue. A difference in score of 10% or more was deemed significant. These results are depicted in Table 9.

**TABLE 9. RESULTS OF THE POST GRADUATE DIPLOMA PROGRAMME: PTEEP**

	Class 1 (>70%)	Class 2 (60% - 69%)	Class 3 (<60%)	Class 4 (Incomplete)
PTEEP_Total	121	114.0714	108.1579	101.881
PTEEP_Overall	69.14286	65.18367	61.80451	58.21769
Vocab	78.49462	73.27189	66.04414	61.21352
Metaphor	74.60317	68.36735	69.92481	63.94558
Inferencing	72.22222	70.53571	62.5	64.28571
Rel Cohesion	88.88889	73.21429	77.63158	65.47619
Comm Function	63.88889	73.21429	69.73684	65.47619
Rel Discourse	78.81944	76.33929	71.05263	62.79762
Genre	58.73016	54.08163	57.14286	57.82313
Visual	88.03419	79.67033	80.97166	76.19048
Essential	63.41463	60.45296	59.3068	55.4007
Numerical	88.03419	79.67033	80.97166	76.19048
Writing	60	56.14286	50.31579	48.28571

A similar analysis of the SRT results for this programme in addition revealed that students who excelled on the Post Graduate Diploma Programme also did not perform significantly better with the overall SRT results. This finding is congruent with the finding on the Certificate Level Programme. It does not seem as if the SRT (reasoning test) had any significant impact on the results of students, in fact the reverse seems true. Poor performers scored higher than top performers on seven areas in this test, with three of those areas having a 10% difference or greater. These results are depicted in Table 10.

**TABLE 10. RESULTS OF THE POST GRADUATE DIPLOMA PROGRAMME: SRT**

	Class 1 (>70%)	Class 2 (60% - 69%)	Class 3 (<60%)	Class 4 (Incomplete)
SRT_Total	39.88889	37.57143	40.42105	36.04762
SRT_Overall	63.3157	59.63719	64.1604	57.21844
Visual	60.97561	58.7108	64.31322	56.32985
Evidence	65.5914	61.75115	63.15789	59.06298
Validity	67.77778	62.85714	62.63158	54.28571
Data Relationships	74.60317	68.62245	74.06015	65.30612
Essence	66.66667	54.7619	66.31579	51.5873
Speculation	45.92593	44.28571	55.08772	47.77778
Permutation	46.66667	48.09524	54.73684	48.88889
Multiple Concl	63.33333	52.85714	68.42105	50.2381
Chance	39.39394	44.80519	52.63158	45.02165
Language	65.35948	60.5042	62.5387	51.68067

Based on the above analysis, key categories were identified relating to the students cognitive ability to perform on the programmes. These categories are depicted in Table 11.

**TABLE 11. IDENTIFIED CATEGORIES RELATING TO COGNITIVE ABILITY**

KEY CONCEPTS	DESCRIPTION
Metaphorical expression (PTEEP) - AIM	Students' abilities to understand and work with metaphor in language. This includes their capacity to perceive language connotation, word play, ambiguity, idiomatic expression, and so on
Communicative function (PTEEP) – AIM	Students' abilities to 'see' how parts of sentences/discourse define other parts; or are examples of ideas; or are supports for arguments; or attempts to persuade
Relationship discourse (PTEEP) – AIM & PGDip	Students' capacities to 'see' the structure and organisation of discourse and argument, by paying attention – within and between paragraphs in text – to transitions in argument; superordinate and subordinate ideas; introductions and conclusions; logical development
Writing Skills (PTEEP) – AIM	
Vocabulary (PTEEP) – PGDip	Students' abilities to derive/work out word meanings from their context
Inferencing (PTEEP) – PGDip	Students' capacities to draw conclusions and apply insights, either on the basis of what is stated in texts or is implied by these texts.
Writing skills (PTEEP) - PGDip	
Identifying pattern and permutation in data (SRT) - AIM	Seeing pattern and permutation in data and being able to generate as many patterns as possible
Acknowledging multiple conclusions (SRT) – AIM	Being able to see that multiple conclusions are possible at times, in the light of the evidence that is presented, and being able to show 'tolerance' of the fact that there is not necessarily one 'right' answer.

In addition to the above categories, was observed that it does not seem as if performance on the Learners' Diagnostics Tests is a pre-requisite for performance on the programmes. This observation was made on the

findings relating to top marks achieved on both the Certificate and Post Graduate Diploma programmes in relation to the overall test results.

Based on the above finding, it can therefore be deducted that there must be other factors that determine how well a student perform on their programmes. It was therefore decided to analyse the students' biographical information relating to age, managerial position and prior qualifications to determine if there are any trends. Only students who obtained an average of 60% and above on their programmes were included in this part of the analysis.

An analysis of the student profiles revealed that 44% of the students who obtained top marks on their programmes were at least in a supervisory position in their organisations, with 33% being in middle management. This is depicted in Figure 74.



FIGURE 74. ANALYSIS OF MANAGERIAL POSITION

It could therefore be concluded that the majority of top performers on the programmes are in positions where they have decision-making authority to some extent. This would assist the students in their studies in that they would be able to implement action research learning assignments without having obstacles relating to obtaining authority.

An analysis of the age profile of top performers on the programmes revealed that the majority of top performers are in their mid-thirties to early forty's. This data is depicted in Figure 75.

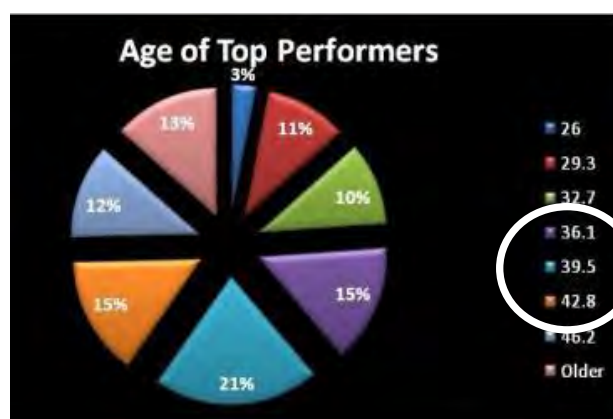


FIGURE 75. ANALYSIS OF AGE PROFILE

Due to the age of top performers, it could therefore be deducted that the majority of top performers on the programmes, must have sufficient work experience. The main deduction of this information is that these students have a significant amount of work experience that could assist them in relating theory to practice.

The last aspect that was considered is the students' prior qualification when commencing the certificate programme. Analysis of this information concluded that 46% of students whom engage the programmes only have at a matric certificate and some form of other certificate qualification. 34% of students are degreed when they commence their programme. This data is depicted in Figure 76.

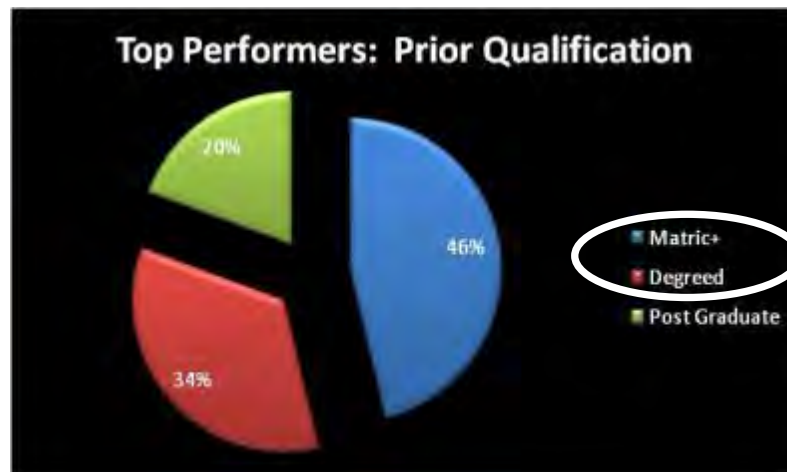


FIGURE 76. ANALYSIS OF PRIOR QUALIFICATION

It could therefore be concluded that prior qualification is not necessarily a pre-requisite for performance on the programmes.

A summary of the key observations are as follows:

- Due to the age of top performers, they seem to be in a career stage where an additional qualification could be beneficial for career advancement, which could be an indication of their desire to perform academically to advance their careers. The concept relating to this observation were identified as: career aspiration
- Most top performers only have a matric, which could also indicate a desire to add a qualification to their name to obtain academic credibility. The concept relating to this observation were identified as: academic credibility
- The majority of top performers are in at least a supervisory positions, indicating that they have sufficient work experience. This could also re-enforce the above indications of a desire to further their career. The concept relating to this observation were identified as: managerial position; work experience
- From the student profiles of top performers it would appear as if these students share a strong motivation to study to either achieve career advancement or add to their academic portfolio. The concept relating to this observation were identified as: inner motivation



The above analysis resulted in the identification of the following additional key categories:

KEY CONCEPTS	DESCRIPTION
Career aspirations	The desire that a student has to further his/her career
Academic credibility	To obtain a qualification at a credible academic institution
Managerial position	Most students are at least in a supervisory position
Work experience	The number of years work experience that a student has
Inner motivation	A student's ability to motivate him/herself to complete study assignments and the programme

The results of this assessment clearly illustrates that prior cognitive ability is not the primary factor that enables students to excel on the programmes. The driving factors are career aspirations, work experience and their position in the organisation that will enable them to apply theories in the workplace. The category that were developed as a result of research cycle 6 clearly contributes towards the category identified in the previous cycle - Readiness for learning. It was therefore decided to include the dimensions identified in this research cycle into the existing category.

These categories were related to the categories already identified in research cycles 1-5 and the final categories were developed for phase one of this study. These categories provide an answer to the research question formulated for phase one of the study: What are the factors that impact the learning process?

- Ability to manage own learning
- Learning Readiness

#### *SUMMARY OF RESEARCH RESULTS OF ACTION RESEARCH CYCLES*

At completion of the six action research cycles three key categories were identified that were formulated in order to answer the research question for phase one of the study –

#### ***“What are the factors that impact the learning process?”***

The key factors that were identified that impact the learning process are the extent of sources of motivation, the student's ability to manage his/her own learning and the student's learning readiness.

## APPENDIX B – DIAGRAMS OF THE GROUNDED THEORY PROCESS

The screen print below illustrates the paragraph-by-paragraph approach towards the first coding process. The yellow highlight in the diagram below, indicates relevant passages that was extracted from the sources. These passages were used to develop the codes.

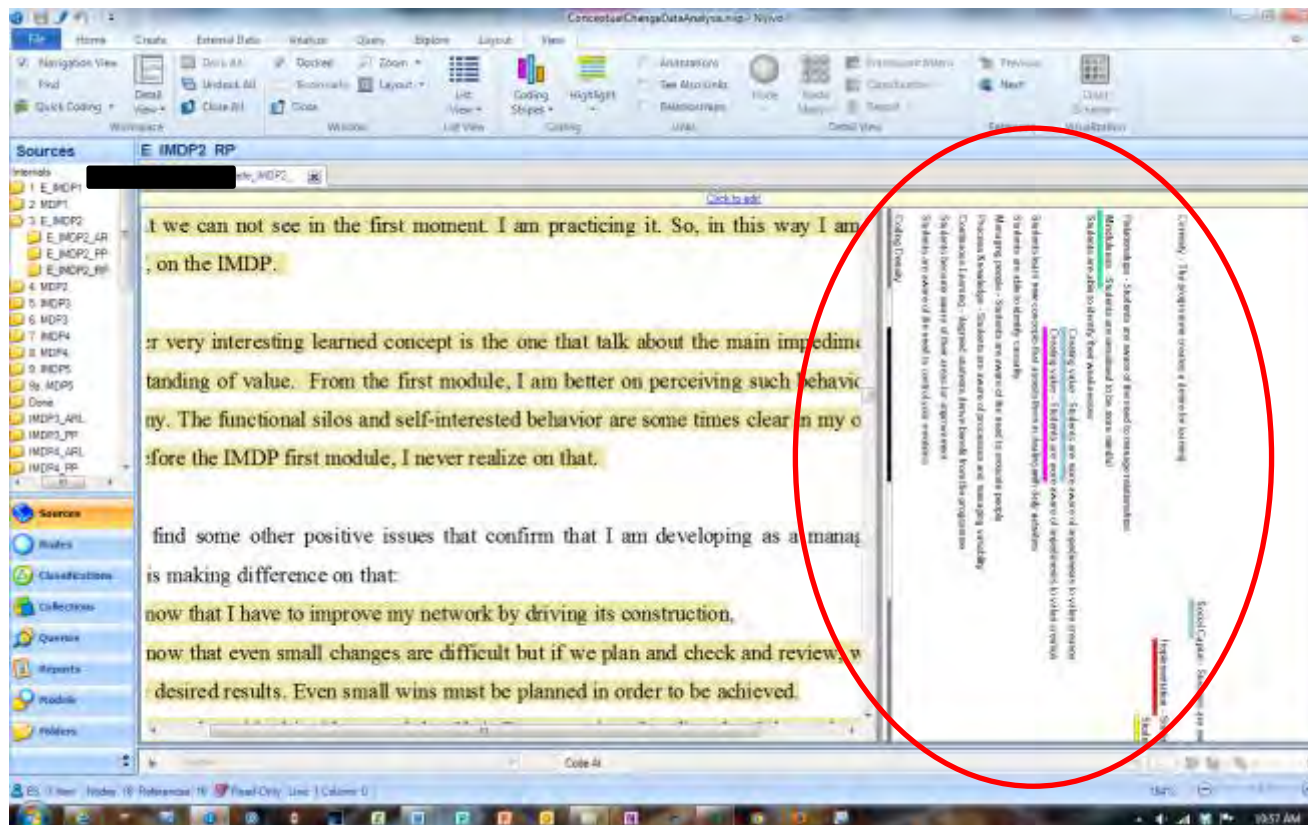


FIGURE 77. SCREEN PRINT OF THE INITIAL CODING PROCESS IN NVIVO.

The screen print below illustrates the number of initial codes (circled in red) developed at completion of the first coding process.

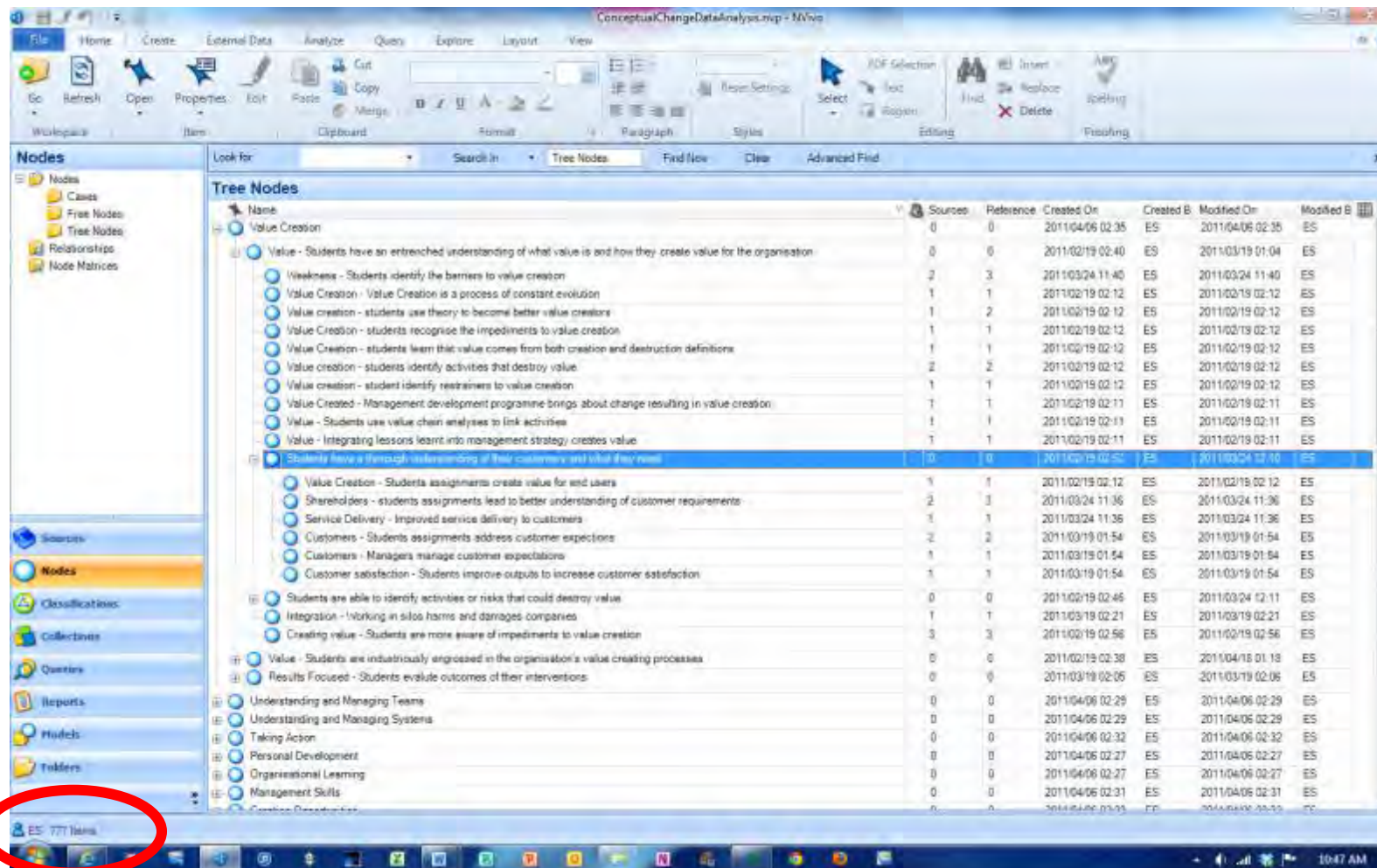


Figure 78. Screen Print of NVivo Initial Coding

A screen print of the focused coding process in NVivo is presented below.

Tree Nodes			
Name		Sources	Referen
<div> <div></div> <div> <div></div> <div> <div></div> <div></div> </div> </div> </div>	Students assignments open new perspectives	1	1
	Students learn to grow their ability to adapt to change	2	2
<div> <div></div> <div> <div></div> <div> <div></div> <div></div> </div> </div> </div>	The ability to recognise, explore and sweep in different perspectives on issues are developed	0	0
	Analysing relationships in a formal manner enables better client focus	1	1
	Diverse perspectives aids in problem solving and value creation	2	2
	Engaging stakeholders perspectives increases knowledge and skills	1	1
	Management development allows students to broaden their views	1	1
	Managers are open to a variety of perspectives	2	2
	Managers create trust through mutual respect when working towards common goals	1	1
	Managers need to understand all perspectives during decision making	1	1
	Managers need to understand all perspectives during problem solving	7	7
	Not incorporating multiple perspectives hampers learning	1	1
	Sharing of knowledge improves relationships	1	2
	Students are aware of the importance of understanding multiple perspectives	10	13
	Students are aware of the need to manage relationships	2	2
	Students are aware of their perspectives and open to new perspectives	2	2
	Students are more open the understand differetn perspectives	1	1
	Students assignments improve relationships with partners_contractors	2	3
	Students become more aware of how other people view the world	1	1
	Students change their perspective on dealing with problems	1	1
	Students gain an appreciation for different perspectives	2	2
	Students look at situations or problems from different perspectives	1	1
	Students recognise where they have not looked at different perspectives	2	2
	Studetns realise the importance of gaining different pespectives	1	1
	The Learning process highlights the need for understanding different perspectives	4	4
	Using small wins to increase working relationships	2	2
	Using the ladder of inference students are able to more clearly define problems	1	1
	The capacity to deal with complex situations and issues by identifying, characterising and appropriately categorising relevant information is enhanced	0	0
	Managers must deal with complexity	1	1
	Managers operate in complex and diverse working environments	1	1
	The programme equip managers to deal with complexities in their context	4	6

FIGURE 79. NVIVO SCREEN PRINT OF THE INITIAL AND CONCEPTUAL CATEGORIES



Tree Nodes			
Name		Sources	Referen
Conceptual Categories	Personal Development	0	0
	Human Conflict - Students are equipped to deal with divergent opinions in order to diffuse potential social discord	0	0
	Impact of own actions Emotional Intelligence - Students become aware of how their activities could potentially harm their organisation, employees, customers, o	0	0
	Mindfulness - Increased mindfulness makes students more sensitive to cues in their environment	0	0
	Mindfulness increases the understanding of diversity and perspectives of others	0	0
	Personal Competencies - Students discover the boundaries of their personal competencies	0	0
	Personal Development - Co-creation of self in the context of the organisation's ethos	0	0
	Personal Learning - Students develop an improved ability to identify personal learning	0	0
	Reflection - Students discover and assess their level of ability in, and awareness of the relevant management competencies through reflection	0	0
	Self Knowledge - Through getting to know their strengths and weaknesses students are empowered to better manage themselves	0	0
	Self restraint - Students practice self restraint to manage situations effectively	0	0
	Taking Action	0	0
	Action - Students are coerced to take action	0	0
	Application - Recognition of instances for the application of learning further enhances knowledge gained	0	0
	ARL assignments tune students into identifying areas for improvement	0	0
	Stance - Students develop the ability to articulate a critical position with a strong conviction and decisive and personal ownership	0	0
	Understanding and Managing Systems	0	0
	Stakeholders - The ability to recognise, explore and sweep in different perspectives on issues are developed	0	0
	Stakeholders - Understanding stakeholder perspectives leads to the development of robust relationships	0	0
	Systems Thinking - Students' thinking ability is enhanced through the adoption and utilisation of systemic thinking practices	0	0
	Systems Tools - Through the application of systems tools students develop more robust solutions to solve problems or optimise systems	0	0
	Understanding and Managing Teams	0	0
	Teams - Building and maintaining effective teams is important to achieve organisational objectives	0	0
	Teams - Students develop the ability to manage self and others in a way that ensures a full and proper contribution to the delivery of exceptional results	0	0
	Teams - The ability to influence others in order to gain cooperation in overcoming obstacles in delivering exceptional business performance is enhanced	0	0
	Value Creation	0	0
	Results Focused - Students evaluate outcomes of their interventions	0	0
	Value - Students are industriously engrossed in the organisation's value creating processes	0	0
	Value - Students have an entrenched understanding of what value is and how they create value for the organisation	0	0

FIGURE 80. NVIVO SCREEN PRINT OF THE CONCEPTUAL CATEGORIES

## APPENDIX C – CONCEPT DEVELOPMENT OF KEY CATEGORIES

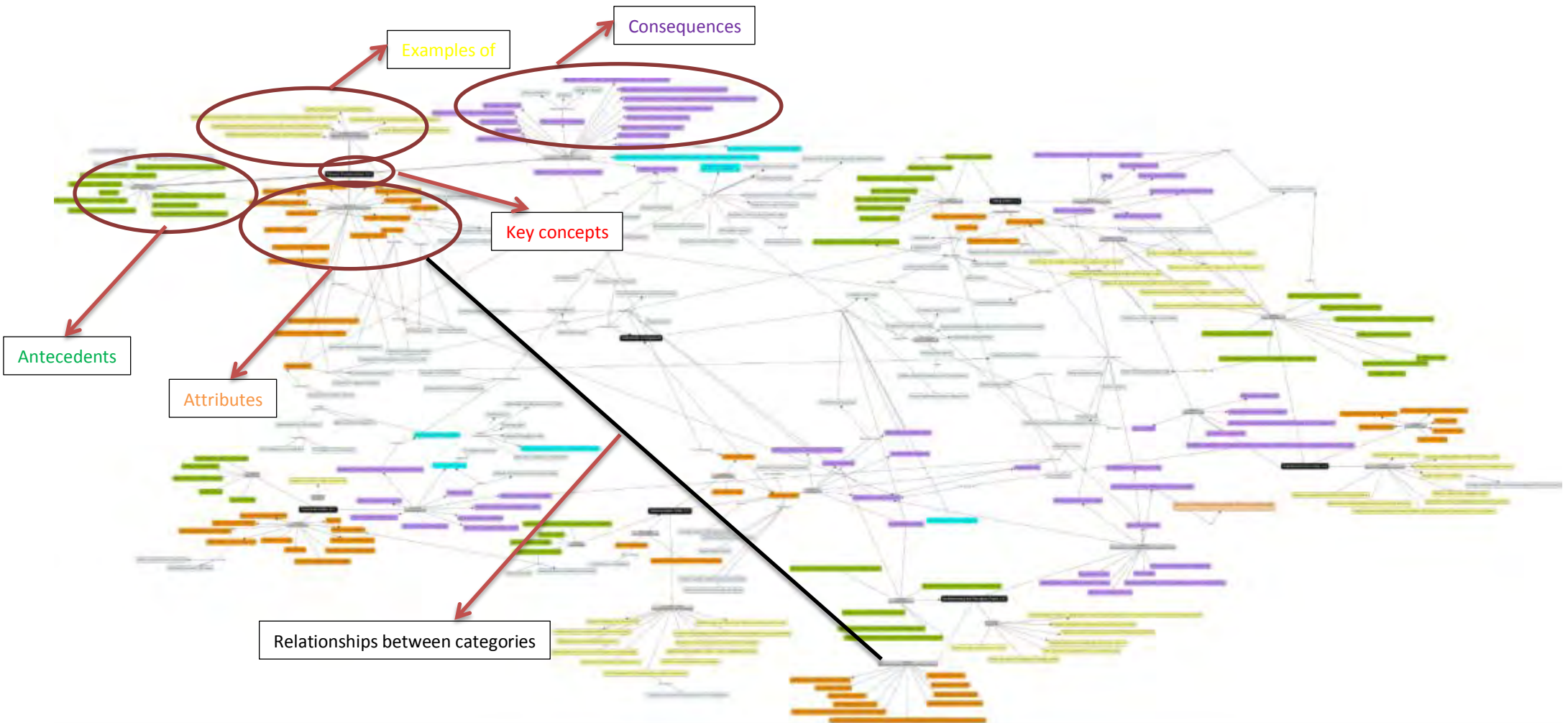
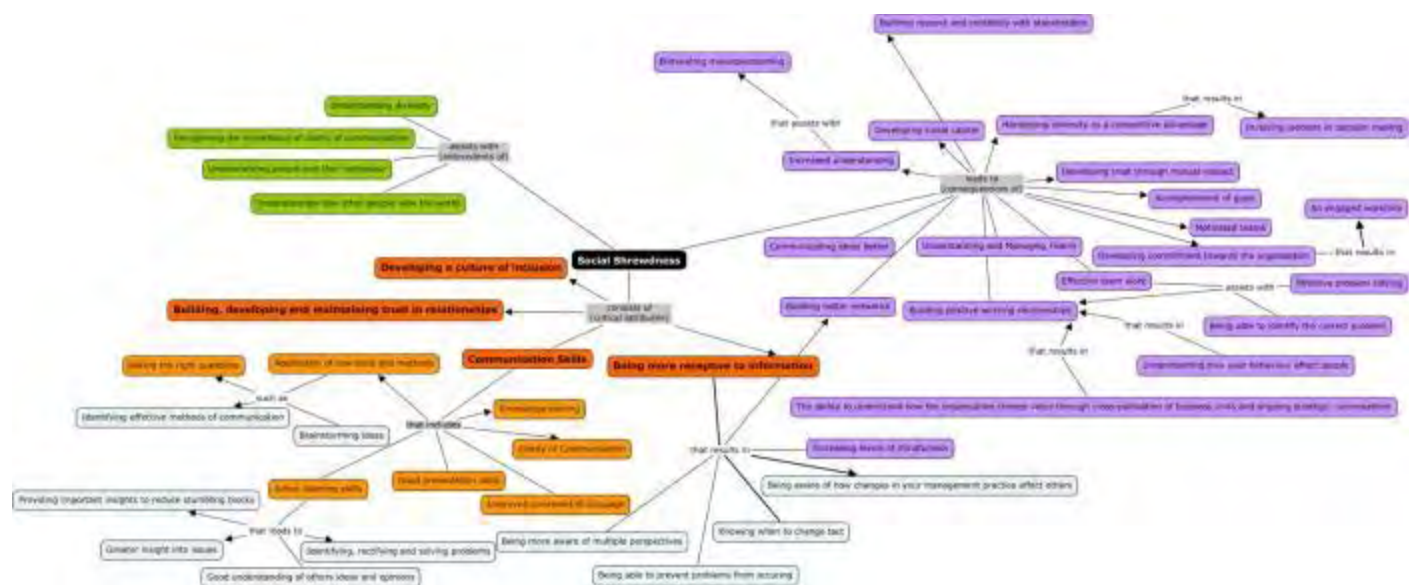


FIGURE 81. CONCEPT FORMATION – REDUCTION SAMPLING

In the figure above, the black shapes depict the seven **key concepts**. The green blocks indicate **antecedents** and the orange blocks **attributes**. Yellow blocks are **examples** of the concept found in this empirical study and the purple blocks are **consequences**. The lines between various concepts indicate relationships between various dimensions of the relevant key concepts.

## CONCEPT MAP AND DEFINITION: SOCIAL ASTUTENESS

### Concept Map



### Importance of the concept

Social astuteness was identified as a key element of the conceptual change that occurred in the management cadre as a result of the management development programme. The significance in this category is mainly centred in the ability of students to communicate more effectively in order to build and maintain good working relationships with stakeholders. Relationship management is strongly linked to conceptual ability and communication skills. It is aimed at building positive relationships, developing trust and creating commitment towards the organisation.

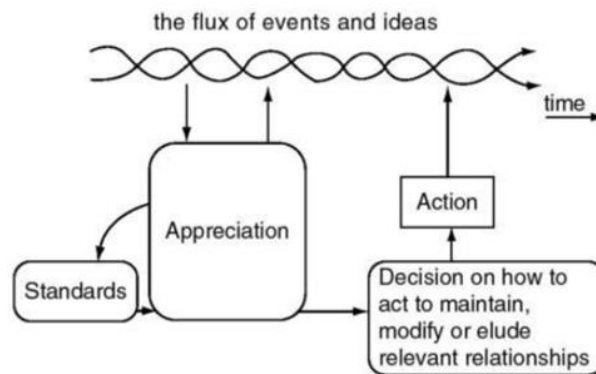
In the context of adult learning and especially experiential learning that was a key component of this programme, social astuteness could however be seen as a key component in a team learning process. Kolb states that for a team to learn from collective experience, it is required that a 'conversational space' be created in order for the team members to reflect on their collective experiences (Armstrong & Fukami, 2009). The results of this study and the key elements identified in this category indicates that managers developed better communication skills and are able to facilitate team development and learning in teams.

### Tentative definition and review of relevant literature

Social astuteness for the purposes of this study, could be defined as the ability to understand people and their behaviour and through effective communication build, develop and maintain trust in relationships that enable the manager to create a cohesive workplace that is conducive towards learning and the achievement of goals.

The work of Vickers explains this concept most accurately. Vickers (as cited in Ramage & Shipp, 2009) stressed the importance of human relationships. For him, the key element of all human activity involves

maintaining human relationships. Vickers maintained that people need to take personal responsibility for maintaining these relationships. Vickers further developed the concept of an appreciative system. This is depicted in Figure 82 below.



**FIGURE 82. VICKERS' APPRECIATIVE SYSTEMS MODEL (RAMAGE & SHIPP, 2009, P. LOC 1241 OF 4659)**

In Figure 82, the flux of events and ideas changes over time. The process of appreciation is about perceiving these events and ideas and making sense of them. This process leads to judgements and actions taken that in turn become part of the stream of events and ideas. Checkland and Casar (as cited in Ramage & Shipp, 2009, p. Loc 1226 of 4649) argues that “the epistemology of the judgement-making will be one of relationship-managing rather than goal-seeking”. Social astuteness in this regard is therefore seen in a similar vein as the process of appreciation as depicted in Vickers’ model.

In the context of adult learning, social astuteness is of particular relevance from a social learning perspective. Jarvis, as quoted by Merriam states:

"Learning, even self-directed learning, rarely occurs 'in splendid isolation from the world in which the learner lives; ... it is intimately related to that world and affected by it' (Jarvis, 1987, p. 11)."

In social learning, meaning-making occurs primarily through communication. Von Glaserfeld (1995) indicates that: "Sensorimotor knowledge manifests itself in actions, but conceptual knowledge is expressed in symbols. When we come to investigate this knowledge, the symbols are mostly linguistic" (p. 76). In order for effective learning to occur, successful ‘navigation’ of the flow of events and ideas is required, as well as maintaining good relationships in order to facilitate an effective appreciation process.

#### **Defining criteria (characteristics and attributes)**

- Developing a culture of inclusion
- Building, developing and maintaining trust in relationships
- Communication Skills that includes:
  - Application of new tools and methods, such as:



- Asking the right questions
- Identifying effective methods of communication
- Brainstorming ideas
- Active listening skills, that leads to:
  - Providing important insights to reduce stumbling blocks
  - Greater insight into issues
  - Good understanding of others ideas and opinions
  - Identifying, rectifying and solving problems
- Good presentation skills
- Knowledge sharing
- Clarity of Communication
- Improved command of language
- Being more receptive to information, that leads to:
  - Being more aware of multiple perspectives
  - Being able to prevent problems from occurring
  - Knowing when to change tact
  - Being aware of how changes in your management practice affect others
  - Increasing levels of mindfulness

### **Antecedents and consequences**

Antecedents include:

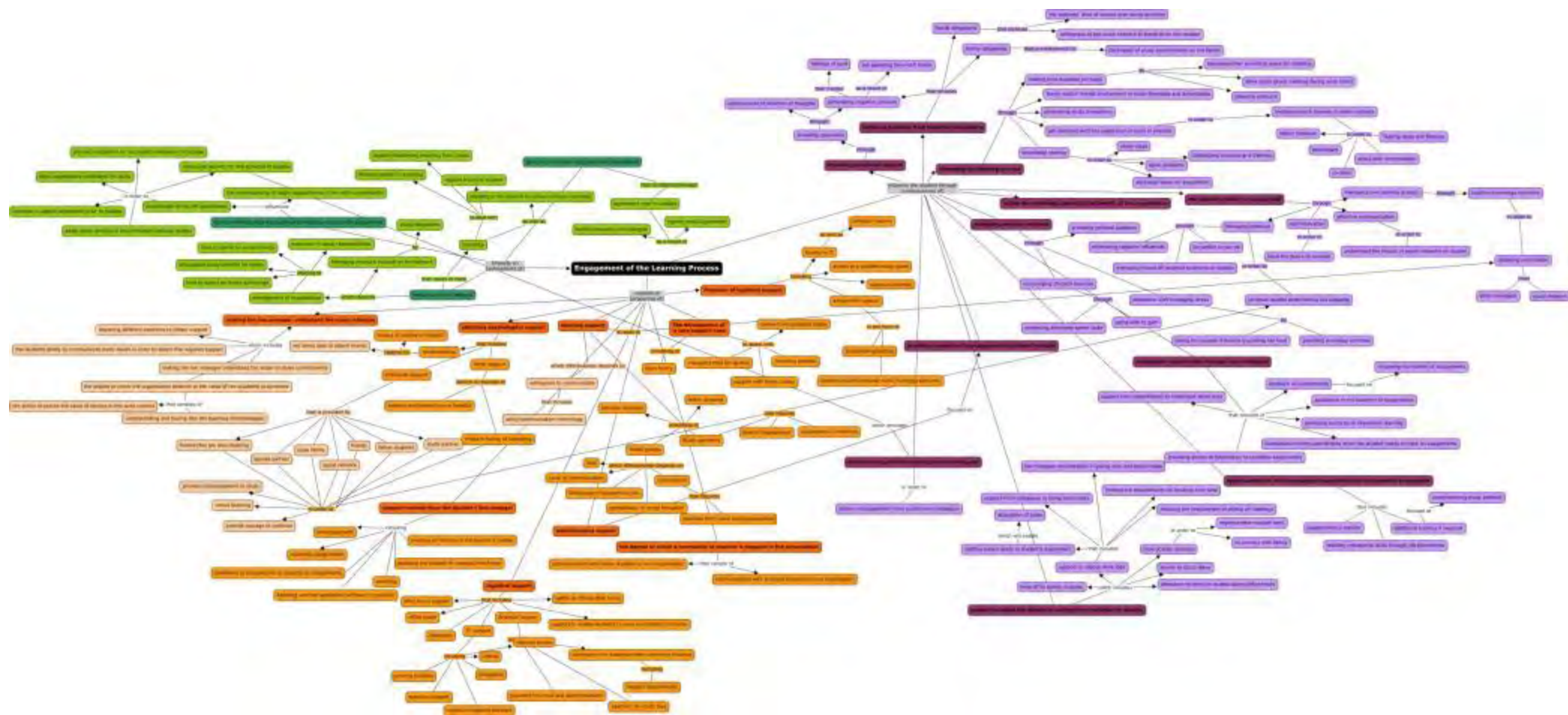
- Recognising the importance of clarity of communication
- Understanding people and their behaviour
- Understanding how other people view the world
- Understanding diversity

Consequences include:

- Increased understanding that assists with Eliminating misunderstanding
- Developing social capital
- Building respect and credibility with stakeholders
- Harnessing diversity as a competitive advantage that results in Involving workers in decision making that results in Motivated teams
- Developing trust through mutual respect
- Accomplishment of goals
- Developing commitment towards the organisation that results in an engaged workforce
- Understanding and Managing Teams

- Communicating ideas better
- Building better networks
- Effective team work that assists with:
  - Effective problem solving
  - Building positive working relationships
  - Being able to identify the correct problem
- Understanding how your behaviour affects people that in turn assist with building good working relationships
- The ability to understand how the organisation creates value through cross-pollination of business units and on-going strategic conversations

## CONCEPT MAP: ENGAGEMENT OF THE LEARNING PROCESS



## APPENDIX D – COMPARISON BETWEEN LEARNING THEORIES AND IDENTIFIED VARIABLES

### MEZIROW'S TRANSFORMATIVE LEARNING THEORY

TABLE 12. ISOMORPHIC COMPARISON BETWEEN KEY CONCEPTS IN MEZIROW'S THEORY

Variable		Concept in Learning Theory	Comments
<b>Ability to Manage own Learning</b>			
• <b>Antecedents</b>	<ul style="list-style-type: none"> <li>• Personal Commitment and Dedication;</li> <li>• Commitment from the organisation;</li> <li>• An effective support system of the network</li> </ul>	<ul style="list-style-type: none"> <li>• Current circumstances</li> <li>• Current circumstances</li> <li>• Current circumstances</li> </ul>	The theory refers more to the individual's current cognitive state and not so much to circumstances that may impact on his/her ability to engage the learning process.
• <b>Attributes</b>	<ul style="list-style-type: none"> <li>• The development of a core support base;</li> <li>• Exploring different networks to obtain support;</li> <li>• Learning support, financial support, psychological support; administrative support;</li> <li>• Communicating study requirements;</li> <li>• Completing required assignments;</li> <li>• Developing and using communities of practice;</li> <li>• Implementing small wins</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> </ul>	Not a good fit with the theory. The theory does not explore this dimension
• <b>Consequences</b>	<ul style="list-style-type: none"> <li>• Getting opportunities for self-development associated with the academic programme;</li> <li>• Being able to balance load and power;</li> <li>• Increased knowledge and skills;</li> <li>• Utilise the knowledge gained to the benefit of the organisation;</li> <li>• Managing the learning process;</li> <li>• The student's ability to manage self</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> </ul>	Not a good fit with the theory. The theory does not explore this dimension
<b>Cognitive Flexibility</b>			
• <b>Antecedents</b>	<ul style="list-style-type: none"> <li>• Being receptive to information;</li> <li>• Understanding the need for critical thinking;</li> <li>• Being able to draw from own experience;</li> <li>• Being able to apply theories;</li> <li>• Willing to share information</li> </ul>	<ul style="list-style-type: none"> <li>• Critical reflection on assumptions;</li> <li>• Contextual understanding;</li> <li>• Validating meaning by assessing reasons</li> <li>• No match</li> <li>• Participating in dialectic discourse</li> </ul>	This dimension has a good fit with the theory. It has many touch-points with the cultural issues that impact on the meaning making process.

Variable		Concept in Learning Theory	Comments
• <b>Attributes</b>	<ul style="list-style-type: none"> <li>• Being able to comprehend strategic contexts;</li> <li>• Analytical and logical thinking skills;</li> <li>• Recognising, exploring and sweeping in multiple perspectives on issues;</li> <li>• Critical Thinking and reasoning skills;</li> <li>• The ability to identify relevant information;</li> <li>• Being able to deal with complexity;</li> <li>• Being aware of boundary judgements</li> </ul>	<ul style="list-style-type: none"> <li>• Contextual understanding;</li> <li>• Critical reflection on assumptions;</li> <li>• Validating meaning by assessing reasons</li> <li>• Critical reflection on assumptions</li> <li>• Validating meaning by assessing reasons</li> <li>• No match</li> <li>• Transform habit of mind and reflect on biases</li> </ul>	This dimension has a good fit with the theory. It has many touch-points with the cultural issues that impact on the meaning making process.
• <b>Consequences</b>	<ul style="list-style-type: none"> <li>• Improving creativity and innovation;</li> <li>• Improving the sense-making process;</li> <li>• Responsiveness of Conceptual Capacities in Perception;</li> <li>• Increasing levels of mindfulness;</li> <li>• Improved decision making;</li> <li>• Knowing when to change tact;</li> <li>• Being aware of the consequences of your decisions;</li> <li>• Being more aware of multiple perspectives;</li> <li>• Being more aware of your own behaviour in the workplace</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• Meaning making process</li> <li>• Formulating more dependable beliefs based on experiences</li> <li>• Formulating more dependable beliefs based on experiences</li> <li>• Establish new point of view</li> <li>• No match</li> <li>• No match</li> <li>• More inclusive, discriminating, open, reflective and emotionally able to change frame of reference</li> <li>• No match</li> </ul>	This dimension has a good fit with the theory. It has many touch-points with the issues that impact on the meaning making process.
<b>Appropriateness of the Co-creative Personal Transformation</b>			
• <b>Antecedents</b>	<ul style="list-style-type: none"> <li>• Recognising the value of lifelong learning;</li> <li>• Being aware that you are responsible for your own learning;</li> <li>• Being actively engaged in the learning process;</li> <li>• The ability to accept change as part of the learning process</li> </ul>	<ul style="list-style-type: none"> <li>• Current circumstances</li> </ul>	Not a good fit with the theory. The theory does not explore the antecedents of the meaning making process
• <b>Attributes</b>	<ul style="list-style-type: none"> <li>• Self-examination;</li> <li>• Learning from your mistakes;</li> <li>• Getting to know your personal value system;</li> <li>• Developing personal vision and goals;</li> <li>• Identifying and changing destructive/negative behaviour in one-self;</li> <li>• Evaluating your current management practice</li> </ul>	<ul style="list-style-type: none"> <li>• The Meaning making process</li> </ul>	Good fit with the theory. This dimension elaborates on the elements of a specific meaning making process. It provides empirical data of the elements of the personal transformation.

Variable		Concept in Learning Theory	Comments
• <b>Consequences</b>	<ul style="list-style-type: none"> <li>• Co-creation of self in the context of the organisation's ethos;</li> <li>• Students develop the ability to articulate a critical position with a strong conviction and decisive and personal ownership;</li> <li>• Improving personal characteristics;</li> <li>• Increasing the ability to adapt to change;</li> <li>• Developing a reflective practice;</li> <li>• Improving self-management;</li> <li>• Improved decision-making abilities;</li> <li>• Understanding how your behaviour affect people;</li> <li>• Being equipped to deal with divergent opinions in order to diffuse potential social discord;</li> <li>• Providing insight into personal behavioural patterns</li> </ul>	<ul style="list-style-type: none"> <li>• More inclusive, discriminating, open, reflective and emotionally able to change frame of reference</li> <li>• Beliefs and opinions that are more true and justified to guide action</li> </ul>	Fair fit with the theory. This dimension provides empirical data of a specific personal transformation that took place. The theory however does not focus on a personal transformation in the context of an organisation, it focuses on an individual level.
<b>Social Astuteness</b>			
• <b>Antecedents</b>	<ul style="list-style-type: none"> <li>• Understanding diversity;</li> <li>• Recognising the importance of clarity of communication;</li> <li>• Understanding people and their behaviour;</li> <li>• Understanding how other people view the world</li> </ul>	<ul style="list-style-type: none"> <li>• Critical reflection on assumptions;</li> <li>• Participating in dialectic discourse</li> <li>• No match</li> <li>• Validating meaning by assessing reasons</li> </ul>	Good fit with the theory. This dimension elaborates on the elements of culture that impact on the meaning making process.
• <b>Attributes</b>	<ul style="list-style-type: none"> <li>• Developing a culture of inclusion;</li> <li>• Building, developing and maintaining trust in relationships;</li> <li>• Communication Skills;</li> <li>• Being more receptive to information</li> </ul>	<ul style="list-style-type: none"> <li>• Participating in dialectic discourse</li> <li>• Transform habit of mind and reflect on biases</li> <li>• Participating in dialectic discourse</li> <li>• Transform habit of mind and reflect on biases</li> </ul>	Good fit with the theory. This dimension elaborates on the elements of culture that impact on the meaning making process.
• <b>Consequences</b>	<ul style="list-style-type: none"> <li>• Developing social capital;</li> <li>• Building respect and credibility with stakeholders;</li> <li>• Building positive working relationships;</li> <li>• Understanding and Managing Teams Harnessing diversity as a competitive advantage;</li> <li>• Developing trust through mutual respect</li> <li>• Accomplishment of goals;</li> <li>• Developing commitment towards the organisation;</li> </ul>	<ul style="list-style-type: none"> <li>• More inclusive, discriminating, open, reflective and emotionally able to change frame of reference</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> </ul>	Fair fit with the theory. This dimension however goes beyond just a frame of mind, it also identifies what follows as a consequence of a change in frame of mind.
<b>Courage to take action</b>			
• <b>Antecedents</b>	<ul style="list-style-type: none"> <li>• Having the safety of an academic</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> </ul>	Poor fit with the theory. The

Variable		Concept in Learning Theory	Comments
	<ul style="list-style-type: none"> <li>programme;</li> <li>• Having a framework to implement (Small Wins);</li> <li>• Being taught useful tools to facilitate implementation;</li> <li>• Being curious;</li> <li>• A desire to learn;</li> <li>• Being able to identify areas for improvement;</li> <li>• Being sensitised to create a cohesive working environment;</li> <li>• Having managerial support;</li> <li>• An engaged workforce;</li> <li>• Being given the opportunity to experiment</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>•</li> </ul>	theory does not identify what is required in order to take action.
• Attributes	<ul style="list-style-type: none"> <li>• Being able to confront uncertainty;</li> <li>• The ability to articulate a critical position with a strong conviction and decisive and personal ownership;</li> <li>• Being open to implementing new ideas;</li> <li>• Effective problem solving;</li> <li>• Effective decision making;</li> <li>• Using theory in daily activities</li> </ul>	<ul style="list-style-type: none"> <li>• Transform point of view</li> </ul>	Poor fit with the theory. The theory does not identify the attributes of taking action.
• Consequences	<ul style="list-style-type: none"> <li>• Involvement in the work place;</li> <li>• Streamlining activities leading to Improved process performance;</li> <li>• Managers learning from different experiences in life;</li> <li>• Students learn when to apply new knowledge;</li> <li>• Increasing learning effectiveness;</li> <li>• an increase in organisational IP</li> </ul>		Poor fit with the theory. The theory does not identify the consequences of taking action.

## ARGYRIS AND SCHÖN'S SINGLE- AND DOUBLE-LOOP LEARNING

TABLE 13. ISOMORPHIC COMPARISON BETWEEN KEY CONCEPTS IN ARGYRIS AND SCHÖN'S THEORY

Variable		Concept in Learning Theory	Comments
<b>Ability to Manage own Learning</b>			
• Antecedents	<ul style="list-style-type: none"> <li>• Personal Commitment and Dedication;</li> <li>• Commitment from the organisation;</li> <li>• An effective support system of the network</li> </ul>	<ul style="list-style-type: none"> <li>• The individual?</li> <li>• No match</li> <li>• No match</li> </ul>	Poor fit with the theory
• Attributes	<ul style="list-style-type: none"> <li>• The development of a core support base;</li> <li>• Exploring different networks to obtain support:</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• No match</li> </ul>	The main link is between communication and using communities of practice

Variable		Concept in Learning Theory	Comments
	<ul style="list-style-type: none"> <li>• Learning support, financial support, psychological support; administrative support;</li> <li>• Communicating study requirements;</li> <li>• Completing required assignments;</li> <li>• Developing and using communities of practice;</li> <li>• Implementing small wins</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• Combined advocacy and inquiry / open communication</li> <li>• Link between action strategy and consequences</li> </ul>	
• Consequences	<ul style="list-style-type: none"> <li>• Getting opportunities for self-development associated with the academic programme;</li> <li>• Being able to balance load and power;</li> <li>• Increased knowledge and skills;</li> <li>• Utilise the knowledge gained to the benefit of the organisation;</li> <li>• Managing the learning process;</li> <li>• The student's ability to manage self</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• No match</li> <li>• Double-loop learning</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> </ul>	Poor fit with the theory
<b>Cognitive Flexibility</b>			
• Antecedents	<ul style="list-style-type: none"> <li>• Being receptive to information;</li> <li>• Understanding the need for critical thinking;</li> <li>• Being able to draw from own experience;</li> <li>• Being able to apply theories;</li> <li>• Willing to share information</li> </ul>	<ul style="list-style-type: none"> <li>• Include views and experience of participants</li> <li>• Theories are made explicit and tested</li> <li>• Model II Theories-in-use</li> <li>• Theories-in-use</li> <li>• Combined advocacy and inquiry</li> </ul>	Good fit with the theory. The antecedents of intellectual flexibility has a significant overlap with the key concepts contained in Model II theories-in-use
• Attributes	<ul style="list-style-type: none"> <li>• Being able to comprehend strategic contexts;</li> <li>• Analytical and logical thinking skills;</li> <li>• Recognising, exploring and sweeping in multiple perspectives on issues;</li> <li>• Critical Thinking and reasoning skills;</li> <li>• The ability to identify relevant information;</li> <li>• Being able to deal with complexity;</li> <li>• Being aware of boundary judgements</li> </ul>	<ul style="list-style-type: none"> <li>• Include views and experience of participants</li> <li>• Theories are made explicit and tested/ focus on questioning the governing variables</li> <li>• Jointly constructing maps</li> <li>• Focus on questioning the governing variables</li> <li>• Use of good quality data</li> <li>• No match</li> <li>• Include views and experience of participants</li> </ul>	Good fit with the theory. Most of the attributes of Intellectual flexibility are included in the Model II Theories-in-use in some form or the other.
• Consequences	<ul style="list-style-type: none"> <li>• Improving creativity and innovation;</li> <li>• Improving the sense-making process;</li> <li>• Responsiveness of Conceptual Capacities in Perception;</li> <li>• Increasing levels of mindfulness;</li> <li>• Improved decision making;</li> <li>• Knowing when to change tact;</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• Focus on questioning the governing variables</li> <li>• Focus on questioning the governing variables</li> <li>• No match</li> <li>• Theory-in-use confirmed</li> <li>• Focus on questioning the governing</li> </ul>	Fair fit with the theory. The theory however does not identify specific consequences of the learning process. It mainly identifies the change in governing variables as an outcome



Variable		Concept in Learning Theory	Comments
	<ul style="list-style-type: none"> <li>• Being aware of the consequences of your decisions;</li> <li>• Being more aware of multiple perspectives;</li> <li>• Being more aware of your own behaviour in the workplace</li> </ul>	variables <ul style="list-style-type: none"> <li>• No match</li> <li>• Include views and experience of participants</li> <li>• Focus on questioning the governing variables</li> </ul>	of double-loop learning.
<b>Appropriateness of the Co-creative Personal Transformation</b>			
• Antecedents	<ul style="list-style-type: none"> <li>• Recognising the value of lifelong learning;</li> <li>• Being aware that you are responsible for your own learning;</li> <li>• Being actively engaged in the learning process;</li> <li>• The ability to accept change as part of the learning process</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• No match</li> <li>• Theories are made explicit and tested</li> <li>• Focus on questioning the governing variables</li> </ul>	This dimension is not explicitly represented in the theory but is implicit in that it is an antecedent of the whole process
• Attributes	<ul style="list-style-type: none"> <li>• Self-examination;</li> <li>• Learning from your mistakes;</li> <li>• Getting to know your personal value system;</li> <li>• Developing personal vision and goals;</li> <li>• Identifying and changing destructive/negative behaviour in one-self;</li> <li>• Evaluating your current management practice</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on questioning the governing variables</li> <li>• Double-loop learning</li> <li>• Focus on questioning the governing variables</li> <li>• Mental Maps?</li> <li>• Focus on questioning the governing variables</li> <li>• Focus on questioning the governing variables</li> </ul>	Good fit with the theory. The theory however does not take into consideration if the personal change is appropriate to what the organisation requires.
• Consequences	<ul style="list-style-type: none"> <li>• Co-creation of self in the context of the organisation's ethos;</li> <li>• Students develop the ability to articulate a critical position with a strong conviction and decisive and personal ownership;</li> <li>• Improving personal characteristics;</li> <li>• Increasing the ability to adapt to change;</li> <li>• Developing a reflective practice;</li> <li>• Improving self-management;</li> <li>• Improved decision-making abilities;</li> <li>• Understanding how your behaviour affect people;</li> <li>• Being equipped to deal with divergent opinions in order to diffuse potential social discord;</li> <li>• Providing insight into personal behavioural patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on questioning the governing variables</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• Focus on questioning the governing variables</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• Include views and experience of participants</li> <li>• Focus on questioning the governing variables</li> </ul>	Not a good fit with the theory. The theory does not describe the nature of the change after questioning the governing variables.
<b>Social Astuteness</b>			

Variable		Concept in Learning Theory	Comments
• Antecedents	<ul style="list-style-type: none"> <li>Understanding diversity;</li> <li>Recognising the importance of clarity of communication;</li> <li>Understanding people and their behaviour;</li> <li>Understanding how other people view the world</li> </ul>	<ul style="list-style-type: none"> <li>Include views and experience of participants</li> <li>Combined advocacy and inquiry</li> <li>Encourage open communication</li> <li>Include views and experience of participants</li> </ul>	Good fit with the theory
• Attributes	<ul style="list-style-type: none"> <li>Developing a culture of inclusion;</li> <li>Building, developing and maintaining trust in relationships;</li> <li>Communication Skills;</li> <li>Being more receptive to information</li> </ul>	<ul style="list-style-type: none"> <li>Jointly constructing maps</li> <li>Encourage open communication</li> <li>Encourage open communication</li> <li>Include views and experience of participants</li> </ul>	Good fit with the theory
• Consequences	<ul style="list-style-type: none"> <li>Developing social capital;</li> <li>Building respect and credibility with stakeholders;</li> <li>Building positive working relationships;</li> <li>Understanding and Managing Teams Harnessing diversity as a competitive advantage;</li> <li>Developing trust through mutual respect</li> <li>Accomplishment of goals;</li> <li>Developing commitment towards the organisation;</li> </ul>	<ul style="list-style-type: none"> <li>No match</li> <li>Include views and experience of participants</li> <li>Jointly constructing maps</li> <li>Jointly constructing maps</li> <li>Include views and experience of participants</li> <li>Match between intentions and outcomes</li> <li>Jointly constructing maps – organisational II learning system/Emphasize common goals</li> </ul>	Good fit with the theory. It could therefore be deducted that effective organisational learning requires a certain degree of social shrewdness
Courage to take action			
• Antecedents	<ul style="list-style-type: none"> <li>Having the safety of an academic programme;</li> <li>Having a framework to implement (Small Wins);</li> <li>Being taught useful tools to facilitate implementation;</li> <li>Being curious;</li> <li>A desire to learn;</li> <li>Being able to identify areas for improvement;</li> <li>Being sensitised to create a cohesive working environment;</li> <li>Having managerial support;</li> <li>An engaged workforce;</li> <li>Being given the opportunity to experiment</li> </ul>	<ul style="list-style-type: none"> <li>No match</li> <li>Theories of Action/Action Strategy</li> <li>Theories of Action/Action Strategy</li> <li>No Match</li> <li>No match</li> <li>Jointly constructing maps – organisational II learning system/Emphasize common goals</li> <li>Encourage open communication/Dialogical/Jointly constructing maps</li> <li>No match</li> <li>Jointly constructing maps</li> <li>No match</li> </ul>	Fair match fit the theory. The theory however takes it for granted that the participants will feel safe to implement their action strategies. There is no clear reference in the theory to the desire to learn and the need for managerial support.
• Attributes	<ul style="list-style-type: none"> <li>Being able to confront uncertainty;</li> <li>The ability to articulate a critical position with a strong conviction and decisive</li> </ul>	<ul style="list-style-type: none"> <li>No match</li> <li>Theories are made explicit</li> </ul>	Good fit with the theory. The theory however does not take into

Variable		Concept in Learning Theory	Comments
	and personal ownership; • Being open to implementing new ideas; • Effective problem solving; • Effective decision making; • Using theory in daily activities	• No match • Double-loop learning • Jointly constructing maps • Theory-in-use	consideration that the individual must be able to confront uncertainty and being open to implement ideas.
• Consequences	• Involvement in the work place; • Streamlining activities leading to improved process performance; • Managers learning from different experiences in life; • Students learn when to apply new knowledge; • Increasing learning effectiveness; • an increase in organisational IP	• Organisational II Learning System • No match • Focus on questioning the governing variables • No match • No match • No match	Poor fit with the theory. The theory does not indicate the consequences of taking action.

## KOLB'S EXPERIENTIAL LEARNING THEORY

TABLE 14. ISOMORPHIC COMPARISON BETWEEN KEY CONCEPTS IN KOLB'S EXPERIENTIAL LEARNING THEORY

Variable		Concept in Learning Theory	Comments
<b>Ability to Manage own Learning</b>			
• Antecedents	• Personal Commitment and Dedication; • Commitment from the organisation; • An effective support system of the network	• Goals/ Positive and negative Valence • Conduciveness of the Learning Space to learning • Barriers in the person and the world	Good fit with the theory. The main focus in the theory regarding the conduciveness of the learning Space to Learning is on the personal aspects and not so much on the organisation's influence.
• Attributes	• The development of a core support base; • Exploring different networks to obtain support; • Learning support, financial support, psychological support; administrative support; • Communicating study requirements; • Completing required assignments; • Developing and using communities of practice; • Implementing small wins	• Conduciveness of the Learning Space to learning • Conduciveness of the Learning Space to learning • Conduciveness of the Learning Space to learning • No match • No match • Conduciveness of the Learning Space to learning • Concrete experience	Good fit with the theory. The theory however focuses more on factors that influence the learner as opposed to actions that the learner take to create a conducive learning space.
• Consequences	• Getting opportunities for self-development associated with the academic programme; • Being able to balance load and power; • Increased knowledge and skills;	• No match • Equilibrium of Forces • Deep learning and development	Fair fit with the theory. The theory however does not focus on the role of the organisation in learning in terms of the benefit of learning

Variable		Concept in Learning Theory	Comments
	<ul style="list-style-type: none"> <li>Utilise the knowledge gained to the benefit of the organisation;</li> <li>Managing the learning process;</li> <li>The student's ability to manage self</li> </ul>	<ul style="list-style-type: none"> <li>No match</li> <li>Effectiveness of the Learning Cycle</li> <li>Conduciveness of the Learning Space to learning</li> </ul>	and the provision of learning opportunities.
<b>Cognitive Flexibility</b>			
• Antecedents	<ul style="list-style-type: none"> <li>Being receptive to information;</li> <li>Understanding the need for critical thinking;</li> <li>Being able to draw from own experience;</li> <li>Being able to apply theories;</li> <li>Willing to share information</li> </ul>	<ul style="list-style-type: none"> <li>Reflective observation</li> <li>Abstract conceptualization</li> <li>Concrete experience</li> <li>No match</li> <li>No match</li> </ul>	Good fit with the theory. The theory however does not address the application of theories in the learning process, or the sharing of information. The theory focuses on the individual and not on group learning.
• Attributes	<ul style="list-style-type: none"> <li>Being able to comprehend strategic contexts;</li> <li>Analytical and logical thinking skills;</li> <li>Recognising, exploring and sweeping in multiple perspectives on issues;</li> <li>Critical Thinking and reasoning skills;</li> <li>The ability to identify relevant information;</li> <li>Being able to deal with complexity;</li> <li>Being aware of boundary judgements</li> </ul>	<ul style="list-style-type: none"> <li>Increases perceptual complexity</li> <li>Increases perceptual complexity/symbolic complexity</li> <li>Increases perceptual complexity</li> <li>Increases perceptual complexity</li> <li>Abstract conceptualization</li> <li>Increases perceptual complexity</li> <li>Increases perceptual complexity</li> </ul>	Good fit with the theory. All the attributes are represented in the theory.
• Consequences	<ul style="list-style-type: none"> <li>Improving creativity and innovation;</li> <li>Improving the sense-making process;</li> <li>Responsiveness of Conceptual Capacities in Perception;</li> <li>Increasing levels of mindfulness;</li> <li>Improved decision making;</li> <li>Knowing when to change tact;</li> <li>Being aware of the consequences of your decisions;</li> <li>Being more aware of multiple perspectives;</li> <li>Being more aware of your own behaviour in the workplace</li> </ul>	<ul style="list-style-type: none"> <li>Increases symbolic complexity</li> <li>Abstract conceptualization</li> <li>Increases perceptual complexity</li> <li>Increases affective complexity</li> <li>Active Experimentation</li> <li>Increases behavioural complexity</li> <li>Increases behavioural complexity</li> <li>Increases perceptual complexity</li> <li>Increases behavioural complexity</li> </ul>	Good fit with the theory. All the consequences are represented in the theory.
<b>Appropriateness of the Co-creative Personal Transformation</b>			
• Antecedents	<ul style="list-style-type: none"> <li>Recognising the value of lifelong learning;</li> <li>Being aware that you are responsible for your own learning;</li> <li>Being actively engaged in the learning process;</li> </ul>	<ul style="list-style-type: none"> <li>No match</li> <li>Appropriateness of learning style for learning goals</li> <li>Effectiveness of the learning cycle</li> </ul>	Fair fit with the theory. The theory however assumes that the learner will recognise the value of learning and accept change as

Variable		Concept in Learning Theory	Comments
	<ul style="list-style-type: none"> <li>• The ability to accept change as part of the learning process</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> </ul>	part of the learning process. These could be serious inhibitors of learning if it is not present.
• Attributes	<ul style="list-style-type: none"> <li>• Self-examination;</li> <li>• Learning from your mistakes;</li> <li>• Getting to know your personal value system;</li> <li>• Developing personal vision and goals;</li> <li>• Identifying and changing destructive/negative behaviour in one-self;</li> <li>• Evaluating your current management practice</li> </ul>	<ul style="list-style-type: none"> <li>• Reflective observation (maybe not on personal attributes?)</li> <li>• Active experimentation ( assuming there will be failures sometimes)</li> <li>• Reflective observation (maybe not on personal attributes?)</li> <li>• Goals</li> <li>• No clear match</li> <li>• Reflective observation (maybe not on personal attributes?)</li> </ul>	Fair fit with the theory. The theory however does not explicitly indicate that reflection based on the concrete experience includes reflection on a personal level.
• Consequences	<ul style="list-style-type: none"> <li>• Co-creation of self in the context of the organisation's ethos;</li> <li>• Students develop the ability to articulate a critical position with a strong conviction and decisive and personal ownership;</li> <li>• Improving personal characteristics;</li> <li>• Increasing the ability to adapt to change;</li> <li>• Developing a reflective practice;</li> <li>• Improving self-management;</li> <li>• Improved decision-making abilities;</li> <li>• Understanding how your behaviour affect people;</li> <li>• Being equipped to deal with divergent opinions in order to diffuse potential social discord;</li> <li>• Providing insight into personal behavioural patterns</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• Increases behavioural complexity</li> <li>• </li> <li>• Increases behavioural complexity</li> <li>• Increases behavioural complexity</li> <li>• Reflective observation</li> <li>• Increases affective complexity</li> <li>• Inferred in taking action</li> <li>• Increases affective complexity</li> <li>• Increases perceptual complexity</li> <li>• Increases behavioural complexity</li> </ul>	Good fit with the theory. All the consequences are presented in the theory in some form or the other.
<b>Social Astuteness</b>			
• Antecedents	<ul style="list-style-type: none"> <li>• Understanding diversity;</li> <li>• Recognising the importance of clarity of communication;</li> <li>• Understanding people and their behaviour;</li> <li>• Understanding how other people view the world</li> </ul>	<ul style="list-style-type: none"> <li>• Increases perceptual complexity</li> <li>• No match</li> <li>• No match</li> <li>• Increases perceptual complexity</li> </ul>	Fair fit with the theory. The theory however does not emphasize the social aspect of learning, but rather emphasizes these skills as an outcome of the learning process.
• Attributes	<ul style="list-style-type: none"> <li>• Developing a culture of inclusion;</li> <li>• Building, developing and maintaining trust in relationships;</li> <li>• Communication Skills;</li> <li>• Being more receptive to information</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• Reflective observation</li> </ul>	Poor fit with the theory.

Variable		Concept in Learning Theory	Comments
• Consequences	<ul style="list-style-type: none"> <li>• Developing social capital;</li> <li>• Building respect and credibility with stakeholders;</li> <li>• Building positive working relationships;</li> <li>• Understanding and Managing Teams</li> <li>• Harnessing diversity as a competitive advantage;</li> <li>• Developing trust through mutual respect</li> <li>• Accomplishment of goals;</li> <li>• Developing commitment towards the organisation;</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• Conflict</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• Active experimentation?</li> <li>• No match</li> </ul>	This dimension has a poor fit with the theory.
Courage to take action			
• Antecedents	<ul style="list-style-type: none"> <li>• Having the safety of an academic programme;</li> <li>• Having a framework to implement (Small Wins);</li> <li>• Being taught useful tools to facilitate implementation;</li> <li>• Being curious;</li> <li>• A desire to learn;</li> <li>• Being able to identify areas for improvement;</li> <li>• Being sensitised to create a cohesive working environment;</li> <li>• Having managerial support;</li> <li>• An engaged workforce;</li> <li>• Being given the opportunity to experiment</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• Abstract conceptualization</li> <li>• No match</li> <li>• Appropriateness of learning style for learning goals</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> </ul>	This dimension has a poor fit with the theory
• Attributes	<ul style="list-style-type: none"> <li>• Being able to confront uncertainty;</li> <li>• The ability to articulate a critical position with a strong conviction and decisive and personal ownership;</li> <li>• Being open to implementing new ideas;</li> <li>• Effective problem solving;</li> <li>• Effective decision making;</li> <li>• Using theory in daily activities</li> </ul>	<ul style="list-style-type: none"> <li>• No match</li> <li>• Increases perceptual complexity</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> <li>• No match</li> </ul>	This dimension has a poor fit with the theory
• Consequences	<ul style="list-style-type: none"> <li>• Involvement in the work place;</li> <li>• Streamlining activities leading to Improved process performance;</li> <li>• Managers learning from different experiences in life;</li> <li>• Students learn when to apply new knowledge;</li> <li>• Increasing learning effectiveness;</li> <li>• an increase in organisational IP</li> </ul>	<ul style="list-style-type: none"> <li>• Active experimentation</li> <li>• Active experimentation</li> <li>• Active experimentation</li> <li>• Active experimentation</li> <li>• No match</li> <li>• No match</li> </ul>	This dimension has a good fit with the theory